

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF OKLAHOMA**

UNITED STATES OF AMERICA,

Plaintiff,

v.

OKLAHOMA GAS & ELECTRIC CO.,

Defendant.

Civil Action No. 5:13-cv-00690-D

**PLAINTIFF UNITED STATES' OPENING BRIEF IN SUPPORT OF ITS
MOTION FOR SUMMARY JUDGMENT AND DECLARATORY RELIEF**

EXHIBIT 9

United States
Environmental Protection
Agency

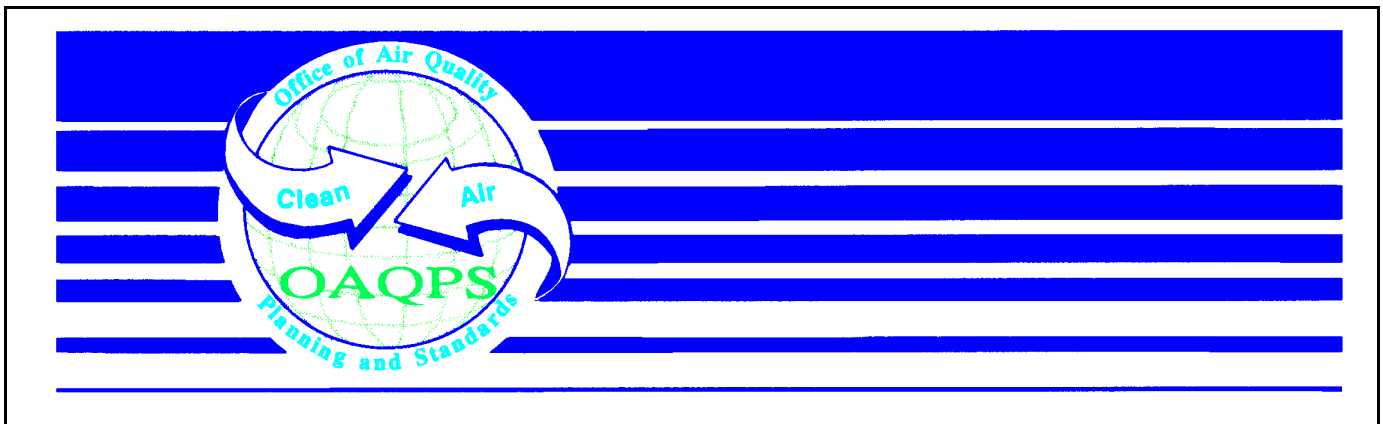
Office of Air Quality
Planning and Standards
Research Triangle Park, NC 27711

November 2002

http://www.epa.gov/ttn/nsr/rule_dev.html



Technical Support Document for the Prevention of Significant Deterioration and Nonattainment Area New Source Review Regulations



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Integrated Implementation Group
Information Transfer and Program Integration Division
Office of Air Quality Planning and Standards
U. S. Environmental Protection Agency
Research Triangle Park, NC 27711

November 2002

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Acronym List

AQRV	Air Quality Related Value
BACT	Best Available Control Technology
BAT	Best Available Technology
BBS	Bulletin Board System
CAA	Clean Air Act
CAAA	1990 Amendments to the Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CMA	Chemical Manufacturers Association
CMS	Continuous Monitoring System
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
DOI	Department of Interior
EPA	United States Environmental Protection Agency
ERC	Emission Reduction Credit
FACA	Federal Advisory Committee Act
FLM	Federal Land Manager
FR	Federal Register
HAP	Hazardous Air Pollutant
HCFC	Hydrochlorofluorocarbons
LAER	Lowest Achievable Emissions Rate
MACT	Maximum Achievable Control Technology
MRRT	Monitoring, Recordkeeping, Reporting, and Testing
MSWLF	Municipal Solid Waste Landfill
MWC	Municipal Waste Combustor
NAA NSR	Nonattainment Area New Source Review
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NERC	Nuclear Energy Regulatory Commission
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOA	Notice of Availability
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NSPS	New Source Performance Standards
NSR	New Source Review
OAQPS	Office of Air Quality Planning and Standards

ODP	Ozone Depleting Potential
ODS	Ozone Depleting Substance
OSHA	Occupational Safety and Health Administration
OTR	Ozone Transport Region
P2	Pollution Prevention
PAL	Plantwide Applicability Limitation
PC-CMO	Physical Change or Change in Method of Operation
PCP	Pollution Control Project
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns in diameter
POTW	Publicly Owned Treatment Works
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
RBLC	RACT/BACT/LAER Clearinghouse
RCRA	Resource Conservation and Recovery Act
RECLAIM	Regional Clean Air Incentives Market
RFA	Regulatory Flexibility Analysis
RFP	Reasonable Further Progress
RIA	Regulatory Impact Analysis
RMRR	Routine Maintenance, Repair, and Replacement
SARA	Superfund Amendments and Reauthorization Act
SCR	Selective Catalytic Reduction
SCAQMD	South Coast Air Quality Management District
SIC	Standard Industrial Classification
SIL	Significant Impact Level
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
STAPPA/ALAPCO	State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials
TPY	tons per year
UT/A	Undemonstrated Technology Application
VOC	Volatile Organic Compound
WEPCO	Wisconsin Electric Power Company

Volume I

Comments Received by the End of the Comment Period

Chapter 4 - Actual-to-future-actual Methodology

4.1 Overview

We received numerous comments on our 1996 proposal to retain the current actual-to-potential test, or to adopt the actual-to-actual test for all sources categories. Some commenters expressed support for alternative applicability options. Commenters also provided comments on the extension of the demand growth exclusion to non-utilities, how we should address utilization increases, and whether 5-year tracking of actual emissions is needed or beneficial. These comments are summarized in sections 4.2 through 4.14 of this chapter.

4.2 Should EPA retain the actual-to-potential test?

Comment:

4.2.1 EPA Should Retain the Actual-to-potential Test

Several commenters (IV-D- 20, 33, 47, 52; IV-G-11, 13) supported continued use of the actual-to-potential test. One commenter (IV-D-47) stated that the actual-to-potential test should be retained for all sources, including utility units. Another commenter (IV-D-52) stated that this existing methodology, however flawed, remains superior to the proposed alternatives. These flaws can be better addressed by plantwide applicability limits and the pollution prevention exclusion. Another commenter (IV-D-33) stated that the actual-to-potential test is a more streamlined process without the additional burden of recordkeeping inherent than the actual-to-future-actual methodology.

One commenter (IV-G-13) supported the actual-to-potential test over the actual-to-future-actual test due to the inherent problems arising from the sufficient records demonstration. Stack testing does not always reflect daily facility operations. Professional engineers and scientists are not always available to ensure accuracy. Moreover, test conditions and parameters do not always reflect daily levels because stack testing is generally not a good indicator of daily emissions.

One commenter (IV-D-50) believed the actual-to-potential test should be used to determine applicability for any source that has never gone through major NSR. For modifications, the potential-to-potential test should apply.

4.2.2 EPA Should Extend the Actual-to-potential Test to Utilities

One commenter (IV-D-47) believed the actual-to-potential tests should apply to public utilities. The commenter suggested that the basis for the original WEPCO rulemaking has been significantly altered as a result of new “open access” rules at the State and Federal level to promote wholesale competition in the public utility industry. One of the major predicates for the WEPCO rule was the involvement of State public utility commissions in the regulation of

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electric power. Subsequent to the WEPCO rule, the Federal Energy Regulatory Commission (FERC) has significantly modified the role of State public utility commissions through promulgation of the regulations related to “Promoting Wholesale Competition through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities.” The Open Access Rule allows utilities to compete for services in much the same way as manufacturing operations. These changes will result in increased competition, decreased regulation, and undermine the predicate for the original WEPCO rulemaking (that is, the involvement of State public utility commissions in the regulation of electric power). For this reason, the actual-to-potential test rather than the actual-to-future-actual methodology should be applied to public utilities.

4.2.3 EPA Should Not Retain the Actual-to-potential Test

Many commenters (IV-D-9, 33, 38, 42, 43, 46, 58, 61, 65, 67, 70, 72, 81, 105, 106, 117, 126, 131, 134, 140, 143, 146, 147, 149, 153, 154, 157, 160, 162, 163, 169, 186, 188, 190, 191; IV-G-4) opposed the existing actual-to-potential methodology.

Go to section 4.5 to see related comments that specifically recommended extending the actual-to-future-actual test to non-utilities.

4.2.3.1 Applies too broadly

Many commenters (IV-D-33, 38, 42, 46, 65, 67, 72, 105, 106, 131, 134, 149, 153, 157, 169, 191) opposed the existing actual-to-potential test because it overestimates emissions, and draws sources that have no actual emission increases, or actual emission decreases, into review. Two commenters (IV-D-67, 131) maintained that the actual-to-potential test has also often resulted in inflated estimates of potential future emissions that are not in keeping with the reality of production or utilization. According to the commenters, in almost every case, the actual-to-potential test will trigger the need for NSR. One commenter (IV-D-157) opposed the actual-to-potential methodology, noting that it illegally extends the reach of NSR to many changes that will never cause a significant emissions increase.

One commenter (IV-D-134) stated that the actual-to-potential test unreasonably and unfairly overstates the difference in emissions between the before- and after-modification scenario and subjects many projects to onerous offset requirements even where emissions will actually be less after the modification. This has resulted in many environmentally sound and beneficial projects not being pursued. One commenter (IV-D-131) stated that the current regulations and policies typically inflate the magnitude of actual emission increases and tend to diminish the magnitude of actual emission decreases. According to the commenter, this is evident when the actual-to-potential test is applied to first an emission increase and then to an equal emission decrease. The commenter suggests that, instead of resulting in no net change of emissions, EPA’s procedures will always result in an apparent increase of emissions. In fact,

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according to the comment, EPA's procedures result in an apparent increase of emissions in all cases except where the final potential emissions are lower than the prior actual emissions. The comment asserts that, more important, perhaps, is the fact that actual emissions (as currently defined) are abnormally low during economic recessions. This is suggested to result in an artificially high value in the apparent emissions increase (i.e., the difference between the prior actual emissions and the new potential emissions) for a new project.

Several commenters (IV-D-38, 42, 43, 61, 65, 105, 140) noted that the actual-to-potential test is inequitable for sources that have low actual emissions or reduce emissions. One commenter (IV-D-65) stated that the actual-to-potential test penalizes those sources that voluntarily reduce their emissions because doing so increases the possibility that the next modification will trigger major NSR. Two commenters (IV-D-65, 140) stated that a source with actual emissions below its PTE is more likely to trigger major NSR than is an otherwise identical source with a history of high emissions. According to the commenter, that phenomenon produces other unfair and illogical results, in that it creates what the commenter views as an unjust enforcement trap for the source that innocently makes changes that, from a common sense point of view, do not increase emissions but nonetheless have a significant difference between actual and potential emission. The actual-to-potential test also undermines the policy that the best time to install new controls is when large changes are being made to the emitting equipment because the actual-to-potential test can be triggered (and a "significant net emissions increase" artificially created) by very minor physical or operational changes. According to the commenter, while there are various exemptions (e.g., changes in raw materials that could have been used before the PSD program was created, increases in hours of operation, and environmentally beneficial projects) built into the policy that would mitigate some of these adverse effects, they greatly complicate the major NSR rules.

According to one commenter (IV-D-105), sources are penalized for past operation at less than 8,760 hours per year. Time spent for shutdowns, maintenance, lack of demand, etc., all reduce actual emissions and consequently broaden the difference between the past actual and future potential. The commenter further noted that pollution control projects in particular should not be subject to actual-to-potential accounting, and gave an example of a source that had already met MACT using a pollution control project, but then was required to undergo BACT.

One commenter (IV-D-61) believed the actual-to-potential test unfairly penalizes sources that are environmentally conscientious by minimizing actual emissions. According to the commenter, the actual-to-future potential test encourages sources to emit as much as possible now, in order to avoid NSR in the future. Another commenter (IV-D-46) noted that NSR requires review of every physical change in, or change in the method of operation of a major stationary source, except for a limited number of changes that are specifically excluded from the program. As a result, the comment continues, source owners and implementing agencies must expend limited resources on changes that are not likely to negatively impact the environment.

4 - 1996 Comments on Actual-to-future-actual Methodology**4.2.3.2 Does not allow utilization increases**

Several commenters (IV-D-38, 140, 143, 146, 160) opposed the actual-to-potential test because it does not exempt emission increases due to demand growth or increased utilization, which they viewed as unfair and contrary to the statute and case law. One commenter (IV-D-146) stated that EPA's analysis of the current requirements is inconsistent with both the current regulatory language, and prior court decisions. According to the commenter, the overly broad applicability described in the preamble would allow for confiscation of existing production capacity without any increase in the rate of total amount of allowable emissions, merely because a source has experienced a decline in its productivity or hours of operation due to accident, aging and/or deterioration of its production equipment. In the view of the commenter, the Agency's proposal to further limit the long-standing exclusion for such activities is unjustified and unreasonable, and provides none of the relief sought by State program officials and industry representatives from this reform effort.

One commenter (IV-D-160) stated that in many cases, the application of the actual-to-potential test is inconsistent with the CAA, as well as the existing NSR regulations. The statute requires that a source be subject to NSR if a particular PC-CMO results in an increase in actual emissions. See CAA 169(2)(C) (cross-referencing the definition of "modification" in CAA III (a)(4)). According to the commenter, by following this approach, EPA has captured within the NSR system changes that cannot reasonably be expected to cause an increase in actual emission. Another commenter (IV-D-143) stated that Congress never envisioned an NSR program that would hamper the ability of a source to increase utilization up to its original design capacity in order to take advantage of fluctuating market conditions or impose an impediment to those sources wishing to undertake non-routine physical or operational changes to enhance efficiency.

One commenter (IV-D-42) stated that the current methodology presents the risk that even physical or operational changes that reduce a unit's emissions could trigger a net emission increase if the unit was not previously used at full capacity and if post-modification emissions are calculated at full utilization (i.e. "potential") rates. The commenter notes that the end result has been that many environmentally sound and beneficial projects did not happen.

One commenter (IV-D-38) stated that the current approach needlessly penalizes sources that do not utilize their full PTE all the time. A source currently can voluntarily forfeit this "excess" PTE to EPA in many ways. EPA recognizes that a source reduces its PTE via a federally enforceable SIP, permit limit or even by generating emission reduction credits. A source should retain its options on its full PTE regardless of actual operations even when adding or modifying emission units.

4 - 1996 Comments on Actual-to-future-actual Methodology**4.2.3.3 Reduces operational flexibility**

Several commenters (IV-D-42, 67, 70, 81) opposed the actual-to-potential test because it reduces operational flexibility. One commenter (IV-D-81) stated that the actual-to-potential test reduces the operational flexibility of a plant, restricting the ability to implement minor changes. According to the commenter, these effects oppose the operational flexibility concepts of the 1990 CAAA.

Five commenters (IV-D-42, 65, 67, 70, 81) stated that the actual-to-potential test encourages sources to operate their equipment as close to the allowable limits as possible, and this method discourages modernization.

4.2.3.4 Burdensome

Several commenters (IV-D-9, 65, 67, 147, 154, 190) believed the actual-to-potential test was confusing and cumbersome for industry and reviewing authorities. Another commenter (IV-D-190) stated that the current policy and regulatory structure has led to a confusing array of regulatory requirements. One commenter (IV-D-154) stated that the “actual-to-future-actual” test is accompanied by permitting, recordkeeping, and other procedural burdens that prior to this proposal did not exist under the program. One commenter (IV-D-147) noted that State regulators offer compelling reasons why the actual-to-potential system is confusing, requires additional exclusions, and produces only marginal environmental benefit.

Three commenters (IV-D-46, 67, 131) noted the existing burden posed by an NSR program that is cumbersome, has discouraged facility changes, has discouraged production, growth, and innovation, and requires spending limited resources on changes that are not likely to negatively impact the environment. Two commenters (IV-D-46, 186) stated that the proposed reforms do not improve the focus of the NSR program and may increase the overall complexity of NSR applicability determinations. Another commenter (IV-D-65) stated that the present test discourages meaningful reform and simplification of major NSR.

4.2.4 Other Comments on Actual-to-potential Methodology

One commenter (IV-D-137) preferred a revised actual-to-potential test. The commenter suggested that the simplest solution to the actual-to-potential problem is for the utility to accept federally enforceable limits on its PTE so that there would not be a significant net emissions increase. However, according to the commenter, State and local agencies’ resources are better spent on other issues, based on the assumption that the demand-growth test and the 5-year reporting provisions are adequate to ensure that the WEPCO provision is not a sham that allows physical or operational changes to result in unregulated significant increases in emissions. The commenter recommends that consideration be given to differentiating between PSD and NSR in attainment areas, where the goal has already been achieved, and offsets in nonattainment areas,

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where further reductions are needed to attain compliance with the NAAQS. Therefore, as described in section 6.4.1, the commenter offered qualified support for the actual-to-future-actual test.

One commenter (IV-D-9) stated that EPA made an incorrect statement in the preamble's Footnote 9 regarding the pharmaceutical industry. The current actual-to-potential threshold determination should not be applied to the pharmaceutical industry, since pharmaceutical equipment is not "design-inhibited" on a feedstock basis and calculating PTE on a per-feedstock and hourly basis is not representative of the industry.

One commenter (IV-D-42) expressed concern that EPA apparently is continuing to require "Federal enforceability" of permit limitations when taking into account those permit limitations in the NSR applicability determination. According to the comment, two recent D.C. Circuit court decisions (National Mining Association V. EPA and Chemical Manufacturers Association V. EPA) disposed of this issue, making it clear that EPA overstepped its bounds in requiring Federal enforceability for this and other purposes. Moreover, the commenter suggested that requiring Federal enforceability when State and local permit limitations are just as enforceable makes little sense and only complicates the NSR process. According to the comment, transaction costs, which are very high for major NSR to begin with, are increased by EPA's insistence on Federal enforceability with no commensurate benefit to air quality. The commenter suggest that EPA repeal its requirement that a source that wishes to limit its PTE must obtain a federally enforceable limit.

One commenter (IV-D-76) stated that the central NSR applicability issue for Municipal Solid Waste Landfills (MSWLFs) is defining fugitive emissions versus non-fugitive emissions so that an MSWLF's PTE can be determined. Unless the Agency promulgates a rule specific to a non-categorical source under section 302(j) of the CAA, fugitive emissions cannot be counted toward a source's PTE. The commenter suggests that EPA should use the proposed rule as an opportunity to clarify the applicability of major NSR for MSWLFs by incorporating the October 21, 1994 memorandum, authored by John S. Seitz Director, Office of Air Quality Planning and Standards, regarding the classification of emissions from landfills for NSR applicability purposes into the preamble discussion of the final rule. This memorandum provides guidance for determining which emissions from an MSWLF could reasonably pass through a stack or equivalent opening (and thus would be non-fugitive), and which could not (and thus should be excluded from the major source threshold calculation as fugitive emissions).

The commenter (IV-D-76) added that EPA should also clarify the application of NSR rules as far as they apply to the various stages in the development of MSWLFs. According to the commenter, MSWLFs are unique from other sources in that they are best characterized as ongoing construction projects whose emissions gradually build up and then fall off over time. The commenter suggests the most efficacious manner in which to deal with MSWLF air emissions is to permit an initial phase of the landfill and then deal with modifications that

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account for the changes in emission levels over time. According to the comment, This kind of approach will assure that the landfill gas system is efficiently designed and operated according to the level of control necessary for the amount of emissions.

Response:

While some commenters presented arguments in support of retaining the current “actual-to-potential” test, we have concluded, for the reasons given below, that the proposed “actual-to-future-actual” test (now promulgated as the “actual-to-projected-actual” test), with some revisions, is a fair and reasonable method for implementing the statutory definition of “modification,” and should be made more broadly available than it has been to the present time.

Under both the “actual-to-potential” test and the “actual-to-projected-actual” test, once it is determined that a non-routine change will occur, past actual emissions generally can’t be relied upon in determining the emissions after the change; rather, a projection of post-change emissions is needed. Under the “actual-to-potential” test, there is an initial presumption that the source will operate at its full potential to emit following the change. When the source believes that actual emissions won’t significantly increase, it is free to project the actual emissions increase, but it must set this level out in an enforceable permit cap. This cap is often set forth in a minor NSR permit or other enforceable mechanism, and must be accomplished before construction may begin. Moreover, the cap may restrict the ability of a source to increase its emissions in association with an increase in production or hours of operation, which when done alone are not normally considered as physical or operational changes. As stated above, the “actual-to-projected-actual” test also relies on the premise that a projection of a project’s post-change emissions is needed. In contrast to the “actual-to-potential” test, however, we believe that under the “actual-to-projected-actual” test, a projection of post-change actual emissions accompanied by recordkeeping, and in some instances reporting, is sufficient. We generally agree with commenters who have argued that existing emissions units in general (including replacement and reconstructed units) have ample track record such that the projection of post-change emissions alone is sufficiently reliable and enforceable and thus the burdens of up-front permit caps on emissions are unnecessary. Thus, the new rules reflect this change in the applicability test for all existing emissions units. For new units, however, we believe that the “actual-to-potential” test continues to be the most appropriate applicability test. In addition, the new rules contain special applicability tests for certain units, including Clean Units, as well as those involved in PALs and pollution control projects.

We disagree with the commenters who thought that the “actual-to-potential” test should be retained because, among other things, the recordkeeping requirements associated with the “actual-to-projected-actual” test would be burdensome. We believe that the new method warrants the requirement for retaining operational records of the unit’s emissions following the change when there is a reasonable possibility that the project may result in a significant emissions increase. The records are needed to enable the source and reviewing authority to

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ensure that the physical or operational changes that are made do not actually result in a major modification. Moreover, many, if not most, of the sources in question are already required to maintain records of emissions for 5 years because they are major sources under Title V of the Act. See 40 CFR 70.6(a)(3)(ii)(B). Likewise, many minor NSR programs or other SIP provisions require tracking and retention of emissions data. In addition, for most sources, the burden of recordkeeping is substantially less than the present burden of obtaining a permit containing an up-front cap on actual emissions. We believe the benefits to source owners and operators of the new method outweigh any residual burden placed on them to maintain the necessary post-change records. The new recordkeeping requirements will mean that a source must (1) maintain a record of its pre-change projection of post-change actual emissions and (2) track its post-change annual emissions, retaining these records on site for 5 years from the date the modified unit returns to regular operation. This recordkeeping requirement will involve a 10-year tracking and data retention period if the physical or operational change will increase the changed unit's design capacity or its potential to emit a regulated NSR pollutant. It should be noted, however, that we have retained a form of the "actual-to-potential" method in that if a source can use an emissions unit's potential emissions in lieu of a projection of post-change actual emissions to show that the physical or operational change will not result in a significant emissions increase, then it can avoid the recordkeeping requirements associated with the projections otherwise required.

We also disagree with the commenter who stated that the actual-to-potential test should be reinstated for EUSGUs due to the increased level of competition in the electric utility industry. The commenter believes that the increased competition and deregulation in the industry would lead to less accurate estimates of post-change utilization and demand growth. We have no evidence at this time that deregulation will affect the ability of utilities to make accurate calculations of their post-change emissions. However, in any particular case when the projection of post-change emissions underestimates the actual emissions increase, then the source would ultimately be subjected to the NSR requirements if post-change records show that a major modification actually occurred. EUSGUs must submit annually, for 5 years after the change, sufficient records to demonstrate that the change has not resulted in a significant emissions increase over the baseline levels, unless the reviewing authority specifies a longer reporting period up to 10 years.

With regard to the commenter's concerns about emissions from municipal solid waste landfills, we recognize that there are some unique differences between annual emissions profiles at landfills and other source categories. In particular, landfills do not go through the types of business cycles that other industries do, and their emissions do not fluctuate in a similar way. We do not believe, however, that an exemption is needed to address this difference because we do not intend to preclude a landfills from continuing to calculate their emissions changes associated with modifications in the same way that they are presently making that calculation. If, following the adoption and implementation of the new rules, we determine that additional

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guidance is necessary, such guidance will be provided for addressing landfill emissions changes from modified sources.

4.3 Actual-to-potential Test Is Contrary to Statute and Case Law**Comment:**

Several commenters (IV-D-117, 143, 147, 153, 154, 157, 160) opposed the actual-to-potential test because they viewed EPA as unfairly applying it to all physical changes and changes to the method of operation. The commenters believed that EPA had incorrectly interpreted the statute and the case law to require that all units are subject to the actual-to-potential test. Instead, the actual-to-potential test should only apply to units that have not “begun normal operations,” that is, according to the commenter, only newly constructed units that have never been in operation. These commenters maintained that the court’s interpretation in the WEPCO ruling, and EPA’s discussion of the WEPCO ruling in the preamble to the 1992 regulations incorporating those changes, correctly indicate the use of the actual-to-future-actual methodology for determining whether an emission increase has occurred. Commenters (IV-D-117, 143, 154, 157, 160) believed instead that non-utility sources (that is, sources other than electric utility steam generating units), are allowed under current regulations to apply the actual-to-actual test to determine emission increases.

Commenter IV-D-153 said that the proposal preamble overstates the extent to which relevant case law supports the actual-to-potential approach as interpreted by EPA. The commenter said the preamble to the final rule should address the problems associated with requiring the use of the actual-to-potential test under current law. The commenter also believed that the court would not uphold EPA’s promulgation of its interpretation of the current PSD regulatory scheme as it has been applied to existing sources. According to the commenter, the actual-to-potential approach cannot withstand scrutiny as a basis for evaluating whether a significant net increase in actual emissions will result.

One commenter (IV-D-143) said while EPA “declines to create a presumption that every emissions increase that follows a change in efficiency is inextricably linked to the efficiency change,” (57 FR 32327), the Agency erroneously asserts that its decision to not adopt such a presumption is limited to “change[s] in efficiency (at an electric utility generating unit).” The comment suggests that the WEPCO preamble’s discussion of this issue makes it clear that the rationale underlying EPA’s position applies equally to all sources.

Several commenters (IV-D-117, 143, 153, 154, 160) believed EPA’s interpretation of the phrase “begun normal operations” was rejected by the Seventh Circuit in the WEPCO case. Commenter IV-D-117 noted that while EPA never defined “normal operations” in its regulations, the D.C. Circuit Court has held that any unit already in operation has “begun normal operations.”

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Two commenters (IV-D-143, 154) characterized EPA's interpretation as contrary to Congressional intent. According to one commenter (IV-D-154), by adhering to its interpretation of the phrase "begun normal operations," and applying the actual-to-potential approach to virtually all PC-CMOs, the Agency ignores Congress' intent to capture under major NSR only those changes causing significant actual increases in emissions from major sources.

Two commenters (IV-D-143, 160) stated that EPA's current interpretation contradicts the explanation of the phrase "begun normal operations" in the preamble to the WEPCO Rule. [57 FR 32312 (July 21, 1992)] In that rulemaking, the Agency specified that "[U]nder its current regulations, EPA must consider the facts of each case and apply the actual-to-potential test only where the change is sufficiently significant to support a finding that 'normal operations' have not 'begun.' The commenter suggests that, at least for changes that are 'like-kind replacements,' 'normal operations' have begun, and the actual-to-potential test is impermissible."

One commenter (IV-D-154) stated EPA's presumption that most non-utility sources undergoing physical or operational changes have not "begun normal operations" has led to the inappropriate application of the actual-to-potential approach in virtually every case. The commenter noted that the preamble emphasized that "EPA must consider the facts of each case and apply the actual-to-potential test only where the change is sufficiently significant to support a finding that 'normal operations' have not begun." Moreover, EPA acknowledged that "[b]ecause the 'begun normal operations' criterion is highly fact dependent and its application is inherently case-by-case, it may be an uncertain indicator of what emissions test will be applied in a given instance" (57 FR 32317). The commenter recommends that the preamble to the final rule discuss these types of problems with requiring use of the actual-to-potential approach under current law. The commenter maintained that many States do not interpret the regulation in the unsupportable manner that EPA appears to and do not require all existing units to base post-change emissions on the unit's PTE after the change. The commenter therefore believed that the Agency should clarify that sources that have relied upon and complied with the explicit requirements of the NSR regulations will not be subject to liability for violating the Agency's inconsistent interpretation of those regulations.

Two commenters (IV-D-105, 143) believed the actual-to-potential test should not apply to like-kind replacements. One commenter (IV-D-143) specifically indicated that the WEPCO court ruling regarding like-kind replacements should apply to non-utilities. The commenter stated that the WEPCO preamble's discussion of this issue makes it clear that the rationale underlying EPA's position applies equally to all sources. In describing the court's ruling in WEPCO, EPA appears to suggest that a "like-kind replacement" consists of the replacement of particular pieces of a facility's equipment with "new components of identical design and function." (61 FR 38255). By this the Agency is apparently attempting to place a restrictive gloss on the meaning of "like-kind replacement." The commenter believes that such a restriction is not warranted. This is so because the court in WEPCO did not define "like-kind replacement" as requiring that any replacement components be of "identical design and function." Rather, the

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commenter asserts that the origin of the term was WEPCO's own briefs, which described "like-kind replacement" as meaning the substitution of new parts that perform the same-function as worn or deteriorated parts at a facility without changing the type or character of the pollutants emitted." (Petitioner's Initial Brief at 3 n.2) Citing the WEPCO decision, according to the commenter, EPA has itself defined a "like-kind replacement" generally as one that "does not change or alter" the design or nature of a facility."

Another commenter (IV-D-105) did not cite WEPCO, but agreed that the actual-to-potential test should never apply to like-kind replacements. The commenter (IV-D-105) stated that the current actual-to-potential approach unfairly causes some like-kind replacements to trigger NSR. In the case of a like-kind replacement, the emission factors and the PTE are the same, so a replaced unit should not be subject to an actual-to-potential test.

Response:

We disagree with the commenters who claim that statute case law, and current regulations do not adequately support the "actual-to-potential" test. We have set forth our legal rationale for the existing regulations in various preambles and policy memoranda. The purpose of our proposed rules was not to seek alteration of these interpretations, but to request comment on how our approach for determining emissions increases might be improved. Therefore, we consider comments addressing the "actual-to-potential" test to be outside the scope of this rulemaking.

We do agree with some of the commenters that there are acceptable alternatives to the "actual-to-potential" approach for certain units beyond just existing electric steam generating units (EUSGUs). The CAA itself is silent on whether increases in emissions, for purposes of determining whether a physical change or a change in the method of operation at an emissions unit constitutes a modification, must be measured in terms of actual emissions, potential emissions, or some other currency. Therefore, we have some discretion to determine the appropriate test for determining whether a modification has occurred. In the NSPS program, we determine whether there has been an "increase in any air pollutant emitted" by the source by comparing hourly emission and the maximum-hourly-achievable emissions. EPA and the courts have recognized, however, that the NSR programs and the NSPS programs have different goals, and thus, we have utilized different emissions tests in the NSR programs. After considering the recommendations of various commenters, and the desirability of adopting alternative methodologies for other source categories, we have now established an applicability test based on an "actual-to-projected-actual" applicability test for existing emissions units in general (including replacement units and reconstructed units), and a different test for those existing units Clean Unit status. For the construction of new emissions units, we continue to believe that the test most appropriately applied to these units is the "actual-to-potential" test. See section 4.2.4 of this chapter for further discussion on our decision to shift from the "actual-to-potential" test

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to the “actual-to-projected-actual” test for all existing emissions units. Also, see chapter 9 of this volume and chapter 5 of volume 2 for additional information about the new Clean Unit test.

4.4 Actual-to-future-actual Test - General Comments**Comment:****4.4.1 Support Actual-to-future-actual Test**

Numerous commenters (IV-D-9, 16, 28, 36, 39, 42, 45, 53, 56, 57, 62, 70, 72, 77, 79, 93, 97, 98, 108, 110, 112, 113, 117, 120, 121, 126, 127, 130, 136, 138, 139, 145, 146, 149, 150, 153, 163, 169, 170, 176; IV-G-2, 3, 4) generally supported use of the actual-to-future-actual test. Many other commenters (IV-D-11, 14, 106, 123, 137, 142, 157, 160) offered qualified support, however. Finally most of the commenters (IV-D-9, 28, 39, 42, 45, 53, 56, 57, 62, 70, 72, 77, 79, 98, 106, 108, 112, 117, 120, 121, 126, 127, 137, 138, 139, 142, 146, 149, 150, 153, 154, 157, 169, 170, 176; IV-G-3) specifically stated that the actual-to-future-actual methodology should be extended to non-utilities.

One commenter (IV-D-137) offered qualified support for the actual-to-future-actual methodology. The commenter was concerned that the methodology would permit significant increases in allowed emissions that are not subject to the technology review and ambient impact review requirements of NSR. The commenter stated that State and local agencies will need to invest much more resources to understand the likely future activity level for a non-utility stationary source. The commenter concluded, however, that in the absence of a good argument to do away with the actual-to-future-actual methodology, there is not a compelling reason to limit its use to the utility industry. While there will be less assurance of the accuracy of the results of future activity reviews, this, in and of itself, is not a good reason to preclude other industries from using this provision.

Some commenters (IV-D-137, 142, 153, 157) said they could not support the actual-to-future-actual methodology unless the demand growth exclusion was included for all sources. Some commenters (IV-D-137, 157) also said that 5-year tracking requirements were essential. Commenter IV-D-137 observed that if an emissions unit were determined to be ineligible for the NSR exemption during the 5-year period (for example, increases in actual annual emissions were caused by factors that did not meet the criteria of the demand growth review), the owner or operator of the emissions unit would likely find that the cost of retrofit would be significantly higher several years after the physical or operational change was made. The commenter mentioned this as a key concern with providing an actual-to-future-actual methodology and one of the reasons why the commenter gave only qualified support for the actual-to-future-actual methodology.

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One commenter (IV-D-123) said that for electric utilities they supported the actual-to-future-actual test as described in the WEPCO rule.

One commenter (IV-D-11) suggested using the actual-to-future-actual test except where the SIP is based on allowable emissions. The commenter believed that this would preclude sources from trading emission reductions that were in the SIP.

One commenter (IV-D-106) offered qualified support for an actual-to-future-actual test. The commenter would support an actual-to-future-actual test only if accompanied by a weighted 12-month average of hours of operation of 50 percent or greater operating capacity as a baseline. The commenter explained why including hours of operating with production capacity below 50 percent would result in an unreasonably low actual emissions baseline and unfairly restrict operations. The commenter requested that EPA propose their baseline methodology for comment along with the actual-to-future-actual test.

One commenter (IV-D-14) supported using the actual-to-future-actual test only for utilities, recognizing that utilities had the authority to use the test. Another commenter (IV-D-142) said even if EPA concludes that the actual-to-future actual test is inappropriate for all source categories, it should be retained for the electric utility industry. This methodology is particularly appropriate for electric utility units, which are required to retain accurate records of emission and utilization pursuant to other programs and other authorities. One commenter (IV-D-123) preferred that EPA retain the current regulations for utilities.

The commenters who supported the actual-to-future-actual methodology gave various reasons for their support.

Several commenters (IV-D-9, 93, 97, 112) stated that this methodology is more accurate and realistic than the existing actual-to-potential method. One commenter (IV-D-97) pointed out that the test appropriately focuses limited facility and State resources on changes that are likely to have a significant impact on the environment, and where NSR permitting can result in an environmental benefit.

One commenters (IV-D-149) stated that the actual-to-future-actual test is a rational accounting method because it uses the same basis for baseline emissions and post-change emissions. Three commenters (IV-D-33, 87, 160), who preferred a potential-to-potential test but would support the actual-to-future-actual as a second option, agreed. One commenter (IV-D-28) characterized it as an entirely reasonable means of determining the effects of a major modification. According to this commenter, it appropriately allows for environmental control and other modifications, pollution control, and pollution prevention projects.

One commenter (IV-D-108) supported the actual-to-future-actual test because without it, even physical changes that reduce a unit's emissions rate could trigger a net emissions increase if

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the unit was not previously used at full capacity, and if post-change emissions are calculated at full utilization rates.

One commenter (IV-D-170) clarified that allowables are poor indicators of actual emissions. At most compressor stations, engines or turbines sufficient to meet peak day demand for transmission and storage are installed. That is, sufficient horsepower is installed to handle the coldest day during the winter heating season and storage requirements during the summer months. Consequently, this equipment is underutilized most of the year. Another commenter (IV-D-16) stated that using PTE rather than actual emissions to determine increases in emissions would be unreasonable for the reasons shared by EPA at 61 FR 38268. According to this commenter, reliance on paper emissions in determining whether sources have undertaken major modifications could result in grievous emission increases. The commenter commended EPA “for its emphasis on the real world.”

One commenter (IV-D-57) noted that the actual-to-future-actual test would accommodate the printing industry. This commenter suggests that, unlike many industries where there is a simple relationship between operational practices and air emissions (such that the PTE can be estimated in a straight-forward manner), in the printing industry potential emissions are difficult to determine because the theoretical boundaries on emissions have no relationship to realistic practices. According to the comments, the current use of PTE estimates is more difficult for the printing industry than the actual-to-future-actual methodology would be. The commenter recommends that EPA allow application of the actual-to-future-actual methodology to the addition or replacement of a printing press or other equipment at a printing facility such as an automatic blanket washer.

One commenter (IV-D-139) stated that the actual-to-future-actual test is more appropriate to research facilities where PTE is especially difficult to predict because research is a highly changeable activity. Should the actual-to-future-actual methodology not be adopted universally, the commenter requested that it be made specifically applicable to research facilities.

4.4.2 Oppose Actual-to-future-actual Test

Many commenters (IV-D-14, 20, 47, 51, 52, 61, 81, 105, 109, 115, 152, 172, 191; IV-G-13) opposed using the actual-to-future-actual test.

Two commenters (IV-D-109, 152) opposed the actual-to-future-actual test because it would allow emission increases that would not be allowed under the actual-to-potential test. One commenter (IV-D-152) stated that EPA should require sources that do not operate 8,760 hours a year at 100 percent capacity to commit to that lower level as an enforceable limit on emissions. According to this commenter, to simply allow an exemption based on a claim that a source’s future emissions will not increase above some level, and to provide no mechanism for holding the source to that claim, is little more than a fraud on the public. The commenter stated that the

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significant negative impacts of the future-actual to past-actual comparison would outweigh some of the modest benefits that it provides. Another commenter (IV-D-109) stated that the test would permit significant increases in allowed emissions that are not subject to the technology review and ambient impact review requirements of NSR.

Several commenters (IV-D-14, 20, 52) objected to any provisions that would allow retrospective determination of NSR applicability, such as might occur if tracking shows that post-change emissions later increase. One commenter (IV-D-20) stated that neither agency reviewers nor the applicants have the authority for activities that are not included in the application, or for a scope of operation exceeding the permitted levels. The commenter suggested that an applicant whose plans change should expect additional agency review before permission is granted. According to the commenter, the fact that demand grows beyond projections should not eliminate the need for impacts analysis and compliance review. The commenter recommends that, if an operator substantially changes the process, the operator must recognize that the reviewing authority is obligated to review the compliance status of the new activity.

One commenter (IV-D-52) stated that if the actual-to-future-actual methodology were implemented, the Agency would need to make a difficult decision about whether an exceedance was due to a modification. According to the commenter, typically, this decision is hampered by economic and political implications, which may outweigh the environmental factors. The commenter also opposed the actual-to-future-actual methodology because it is wasteful to apply the proper controls after the initial modification. The commenter suggests the total amount of permitting time needed (combined permitting time for the original permitting and the backwards-looking analysis) will exceed that needed for a normal NSR permit; the cost to retrofit a technology will exceed the cost of installing the controls at the time of modification or installation; and during the period in which controls were not applied, additional pollution occurs.

One commenter (IV-D-172) noted that if a facility can project future-actual emissions to show that they will not exceed significant levels, and the facility is willing to submit 5 to 10 years of future operational records to verify their projections, why aren't they willing to incorporate those projections into the permit to begin with, thus removing the need for a demand growth exemption? According to the commenter, the only foreseeable benefit to the new methodology seems to be that it allows facilities to factor out actual emission increases attributable to demand growth, which is not allowed under current provisions. The commenter suggests that the cost of this flexibility is: (1) to force State agencies into the unpopular position of taking enforcement action, after retrospectively evaluating permit actions; and (2) to require costly air pollution control retrofits.

One commenter (IV-D-14) opposed the actual-to-future-actual methodology for several reasons. First, it is impossible to predict future emissions. Even for a simple process, future

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emissions are difficult to predict and are influenced by natural variations and process upsets. Future emissions must also consider future utilization. The commenter, a State agency, noted that they have often been told that sources cannot make any estimate of projected capacity utilization. Furthermore, according to the agency, even if future emissions are predictable, it would be impossible to determine whether an emission increase was caused by the modification or by something else.

Several commenters (IV-D-20, 47, 52, 105, 109, 172, 191) objected to the actual-to-future-actual methodology because they viewed it as needlessly complex and likely to create burdens on the reviewing authority. One commenter (IV-D-47) said under the proposed actual-to-future-actual methodology, a source planning a modification would have to predict its future capacity and actual emissions resulting from the modification. This, according to the commenter, would be difficult for many source categories and result in the generation and analysis of extensive information unrelated to air quality protection. Another commenter (IV-D-52) stated that a future-actual to past-actual comparison would require difficult retrospective judgments and be too hard to implement. One commenter (IV-D-105) conceded that although an actual-to-future-actual approach has merit, it does not reduce the complexity and recordkeeping burdens on the regulated community. In addition, it is often difficult to calculate past actual emissions, particularly when equipment is operating at different loads throughout the year. The commenter suggests that emissions of CO are especially susceptible to load variation, and calculation of CO emissions would entail an analysis of time spent at various operating loads. Additionally, emission factors can vary by machine type and size, and relying on AP-42 factors is not an accurate way of calculating actual emissions. The commenter also questioned how emissions would be tracked under an actual-to-future-actual accounting. One commenter (IV-D-191) stated that EPA needs to provide clear guidance on a methodology for projecting future-actual emissions.

One commenter (IV-D-81) stated that the actual-to-future-actual test tends to penalize sources for operating existing equipment in the best manner to control emissions, and encourages sources to operate their equipment as close to the allowable limits as possible. According to the commenter, this method discourages modernization of equipment and encourages the use of antiquated equipment with lower productivity and less efficiency per unit of emissions. It also reduces the operational flexibility of a plant, restricting the ability to implement minor changes. The commenter believes that these effects oppose the operational flexibility concepts of the CAAA.

One commenter (IV-D-47) observed that because the actual-to-future-actual test does not apply to replacements or new source construction, its potential use is very limited. The commenter also believed that PALs offered a more viable solution than the actual-to-future-actual methodology for streamlining the process for modifications. The commenter stated that the potential benefit to the regulatory community of the actual-to-future-actual methodology can be accomplished more efficiently and effectively within the context of a PAL.

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Some of the comments in this section have already been addressed in the responses to comments on retaining the actual-to-potential test in Section 4.2, above. Comments involving the calculation of baseline emissions have been addressed in Chapters 2 and 3. The responses below address those comments not already specifically discussed.

We disagree with those commenters who asserted that some modification projects that would have triggered major NSR as major modifications under the “actual-to-potential” test will not trigger review under the new “actual-to-projected-actual” test. As explained previously in section 4.2, the essential difference between the two methods is that under the “actual-to-potential” approach, the projection of actual emissions may be set forth in a minor NSR permit or other enforceable emissions-capping mechanism before construction, whereas the “actual-to-projected-actual” approach relies on emissions tracking and recordkeeping to insure that projected actual emissions are not exceeded (unless the company obtains a major NSR permit). The end result is that State and local reviewing authorities now have the option of focusing their limited resources on those types of changes that are going to result in significant increases in actual emissions to the environment. Use of the new test will also remove the perceived disincentive claimed by many industry commenters for sources to make the types of changes that improve operating efficiency, implement pollution prevention projects, and result in other environmentally beneficial changes.

We also note that the current rules do not require every emissions increase to undergo major NSR as some commenters seem to assume. For example, under the definition of “modification,” emissions increases resulting from increases in production and increases in the hours of operation at an emissions unit do not constitute modifications that are subject to review (other than increases associated with construction-related activities at the unit). The new rules likewise allow sources to exclude these types of emissions increases when calculating the emissions increase resulting from a physical or operational change from an existing emissions unit as long as those increases are not related to the physical or operational change.

We disagree that the actual-to-projected-actual test will make it more difficult to accurately identify those changes at a unit that will result in actual emissions increases. The requirement that a physical or operational change cause an emissions increase in order to constitute a modification is implicit in the CAA itself, has always been an explicit requirement of EPA regulations, and is not being changed in the new rules. In addition, as explained previously, the 5-year tracking provision in the final rule will assure that any subsequent emissions increase that exceeds the projected level (insofar as it represents a significant emissions increase) must be reported to the reviewing agency and then appropriate review will take place. Likewise, the commenter's statement that the actual-to-projected-actual test will allow emissions increases to escape ambient impact review where they would not under existing rules is not correct, because the new test does not change the basic calculus for determining

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major NSR applicability, but only how that calculus is enforced. In addition, physical or operational changes that do not, under either the existing rules or the new rules, undergo major NSR are often subject to minor NSR requirements. (Examples include upgrades to a power boiler at an industrial plant where the owner projects that there will be less than a significant increase in emissions.) EPA's minor source regulations require State minor NSR programs to insure that air quality analyses are conducted regarding changes at existing sources as may be necessary to insure that they do not interfere with attainment or maintenance of the NAAQS. Also, emissions increases at existing sources remain subject to review by the reviewing authority under a periodic assessment of the PSD increments or in response to information that an applicable increment is being violated. See 40 CFR 51.166(a)(4). For such analyses, the new rules provide that the current procedures for measuring the effects of actual emissions increases (using the current definition of "actual emissions") would continue to apply. The new rules provide that the new "actual-to-projected-actual" test be used only for applicability purposes to determine whether a project involving one or more existing emissions units at a major stationary source will result in a significant emissions increase

We agree with the commenters who believe retrospective NSR applicability determinations would be problematic. It is our intent under the new rules that the need for such retroactive determinations would be minimal. The main purpose of the annual tracking requirements is to maintain adequate information to ascertain whether the source's initial estimate of post-change actual emissions is accurate, but such a tracking requirement should also promote careful and accurate projections so that sources will not have to face the risk of retroactive NSR applicability and possible enforcement actions. The new rules also contain procedures enabling the reviewing authority to review a source's post-change operating records and institute further action as necessary if either the resulting post-change annual emissions increase or the emissions projection is significant.

We disagree that the level of emissions used to determine an emissions unit's post-change actual emissions should automatically be an enforceable permit condition. The purpose of the "actual-to-projected-actual" applicability test is to determine whether a physical or operational change at an existing emissions unit will result in a major modification of the source without requiring up-front limitations on post-change emissions. Such limitations would become an administrative burden on the reviewing authorities responsible for their issuance and would also limit the ability of the source to respond to economic conditions by making the types of production changes that are not considered to be physical or operational changes. Thus, it would defeat the central purpose of the new test to require the projection of the unit's post-change actual emissions rate that is part of this test to represent a new allowable emissions rate for the source.

We agree with the commenters who requested inclusion of the demand growth exclusion for non-utility sources. This exclusion has been retained in the final rule. We have concluded that this provision is consistent with both the statute and the existing regulations, which require

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a causal link between the proposed change and any post-change increase in emissions, that is, "...any physical change or change in the method of operation that would result in a significant net emissions increase..." [emphasis added]. See, for example, existing §52.21(b)(2)(i). While in a very few cases it may be difficult to determine whether a particular emissions increase is directly attributable to a physical or operational change that is made to an emissions unit, it would be inappropriate to eliminate the availability of the exclusion to everyone in order to address this concern. Consequently, the final rule follows the 1996 NPRM in that when a projected increase in equipment utilization is in response to a factor such as growth in market demand, a source may subtract the emissions increases from the unit's post-change actual emissions if the source can show that the unit could have achieved the necessary level of utilization during the consecutive 24-month period it selected to establish the baseline actual emissions, and the increase is unrelated to the physical or operational change(s) made to the unit. See, for example, new §52.21(b)(41)(ii)(c). We emphasize that demand growth can only be excluded to the extent that the associated emissions increase is not related to the physical or operational change. Thus, even if the operation of an emissions unit to meet a particular level of demand could have been accomplished during the representative baseline period, but it can be shown that the increase is related to the changes made to the unit, then the emissions increases resulting from the increased operation must be attributed to the modification project, and cannot be subtracted from the projection of post-change actual emissions.

With regard to the commenter who claimed that the actual-to-projected-actual test would encourage sources to operate as close as possible to their emission limits. We believe there is no more incentive under the "actual-to-projected-actual" test than there is under the "actual-to-potential" test to operate at a higher emission rate.

Concerning the comment on data availability for the 10-year look back period, the new rules limit the full use of the 10-year look back period based on the accuracy and completeness of a source's records of emissions and capacity utilization for any emissions unit that undergoes a physical or operational change. See, for example, new §52.21(b)(48)(f). As with all emissions calculations, accuracy and completeness are central elements for applicability determinations. In many cases, sources presently maintain accurate records on emissions and operations for only 5 years. Thus we think it is appropriate to limit use of the full 10-year look back period when a source does not have data for this time period. However, this limitation should be alleviated over time as sources begin to maintain records for longer periods to accommodate the 10-year look back opportunity. The subject of data quality and availability for the 10-year look back period is addressed more fully in Chapter 2.

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4.5 Actual-to-future-actual Test - Extend to Non-utilities**Comment:****4.5.1 Support extending to non-utilities**

Many commenters (IV-D-9, 28, 39, 42, 45, 53, 56, 57, 62, 70, 72, 77, 79, 93, 98, 106, 108, 112, 117, 119, 120, 121, 123, 126, 127, 136, 138, 139, 140, 142, 143, 146, 147, 149, 150, 153, 154, 157, 160, 169, 170, 176; IV-G-3) urged EPA to extend the use of the actual-to-actual-future methodology to all source categories.

Several commenters (IV-D-77, 106, 117, 119, 123, 136, 142, 143, 147, 157, 160, 169) argued that the WEPCO rule already allows any unit that has begun normal operations (that is, any existing emission unit) to use the actual-to-future-actual methodology. These commenters maintained that the regulations and the applicable case law require use of an actual-to-future-actual approach when the source has “begun normal operations.” Another commenter (IV-D-117) stated that EPA should emphasize in the preamble to its final rulemaking the actual-to-future-actual methodology revision does not represent an entirely new rule of law. Rather, according to the commenter, the revision simply codifies the court’s interpretation of existing law in the WEPCO opinion. Two of the commenters (IV-D-147, 160) noted the preamble to the 1992 WEPCO rule (57 FR 32317) and recent EPA policy memos as supporting the application of actual-to-future-actual test to all types of sources.

One commenter (IV-D-142) stated that EPA must always use the actual-to-future-actual test for both electric utility sources and non-electric utility sources that have begun normal operations. The commenter suggests that, in the case of electric utility sources the determination of whether normal operations have begun is relatively straightforward: the “past-actual/future-actual” methodology applies to all physical or operational changes, except those that constitute an addition of a new unit or constitute a replacement of an existing unit. The commenter recommends that, in the case of non-electric utility sources, the determination of when normal operations have begun is a case-by-case one, although for those changes that involve like-kind replacements, the actual-to-actual approach applies. One commenter (IV-D-119) noted that the actual-to-future-actual test should only applied to like-kind replacements.

One commenter (IV-D-42) stated that gas utilities should be able to use the WEPCO rule because they are generally similar to coal-fired utilities. In areas where emission data are plentiful, accurate, and readily available, post-modification tracking of emissions for the requisite 5 years after the modification would be an easy task. In the preamble to the NSR reform proposal, EPA recognizes that utilities are subject to control by Public Utility Commissions but makes no distinction between gas and electric utilities. The gas utility business also has no control over demand growth in its service territories and should be allowed to benefit from application of the WEPCO rule.

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Three commenters (IV-D-72, 93, 140) stated that it is not equitable to have one applicability test for utilities and another applicability test for other industries. One commenter (IV-D-140) suggested that this is particularly true in industries where debottlenecking projects often trigger major NSR due to increased power demands. Another commenter (IV-D-72) noted that the factors EPA cites for possibly confining the methodology to electric utilities are irrelevant.

Two commenters (IV-D-137; IV-G-2) gave qualified support to extending the actual-to-future-actual methodology to non-utility sources but also recognized that because non-utility sources are not subject to the level of oversight experienced by utilities, State and local agencies will need to invest more resources to understand the future activity level for a source that uses this approach. The commenter notes that there will be less certainty in the results of this review; however, this is not a sufficient reason to preclude other industries from using the methodology. Commenter IV-D-137 added that in the absence of a good argument to eliminate the actual-to-future-actual methodology, there is no a compelling reason to limit its use to the utility industry.

4.5.2 Opposed extending to non-utilities

Some commenters (IV-D-109, 125, 393; IV-G-07) opposed extending the actual-to-future-actual test to non-utilities. They expressed concern that non-utility sources may fail to properly and safely use the actual-to-projected-actual test. One commenter (IV-D-125) stated that electric utilities are unique because their production and emissions may reliably be forecast. Commenters (IV-D-109, 125; IV-G-07) agreed that few sources share this characteristic and the use of the WEPCO precedent should be applied only to electric utilities. Commenter IV-D-109 added that the proposal, whereby historical actual emissions are compared to projected actual emissions, would permit significant increases in allowed emissions which are not subject to NSR. According to this commenter, the entire proposed methodology is needlessly complex and should be eliminated.

Response:

As explained above in the response to comments in Section 4.2, we have always maintained that the decision in the WEPCO case requiring an actual-to-future-actual applicability test (now the actual-to-projected-actual test) for modifications to existing EUSGUs could be extended to non-utility sources. We did propose such an extension in the 1996 NPRM (61 FR 38250) and requested further comments in the 1998 NOA (63 FR 39857). Most of the comments listed here have already been addressed in our response to comments in sections 4.2 – 4.4, and the reader is referred to those sections for more detailed responses.

With regard to the commenter's claim that the new "actual-to-projected-actual" method is needlessly complex, we would note that the existing "actual-to-potential" method also allows an applicant alternatives that are similar to the ones under the new method for determining

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baseline emissions and the post-change actual emissions. Under the existing method, sources may seek to use an historical operating rate other than the 2 years immediately preceding the change to establish baseline emissions. This method has been widely criticized as being complex, burdensome and time consuming. The new method would eliminate most of the problems associated with the existing approach. In addition, the new method requires the baseline emissions to be adjusted for current emissions limitations, whereby the existing method does not. With respect to post-change emissions, the existing method allows a source to predict the post-change actual emissions increase in lieu of accepting the increase at allowable levels. However, the existing method requires the source to accept an emissions cap at the predicted actual level of increase, thereby prohibiting the source from making other subsequent production changes at the source that would otherwise be allowed in the absence of a major NSR permit. Moreover, if the source determines, during the 5 or 10 years of required recordkeeping, that the changes made to a unit result in greater emissions increases than originally calculated, and such increase results in a significant emissions increase, the source should submit a report to the reviewing authority to explain the discrepancy. We believe the new method will eliminate the confusion and burdens associated with the existing method and will provide sources with greater flexibility to make changes that will improve efficiency without resulting in significant emissions increases. If, however, individual source owners prefer to instead obtain an enforceable cap on potential emissions following the change, as under the existing regulations, this remains an option.

We believe that these added recordkeeping and reporting measures will provide the information necessary for reviewing authorities to assure that such changes are made consistent with the Clean Air Act requirements. Altogether, we believe that today's regulatory amendments focus on the types of changes occurring at existing emissions units that are more likely to result in significant contributions to air pollution. The amendments will also require greater accountability on the source's part to retain information from which the reviewing authority can determine the nature of any changes that are made at the facility as well as the actual emissions increases that are associated with those changes.

4.6 Eliminate Actual-to-future-actual for Utilities**Comment:**

Several commenters (IV-D-28, 123, 128, 143, 145, 169; IV-G-3) opposed eliminating the actual-to-future-actual approach for electric utility sources. Six commenters (IV-D-28, 123, 128, 143, 145; IV-G-3) stated that there is no basis for eliminating the actual-to-future-actual approach for electric utility sources. According to these commenters, to do so would signify a retreat from the WEPCO ruling and a significant limitation on rules that have been in place since the NSR program was first promulgated. One commenter (IV-D-145) stated that if EPA is proposing to eliminate the actual-to-actual methodology, then it is proposing a fundamental and unprecedented

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change in the way the modification rules are applied, a change that can only be accomplished through rulemaking that includes public notice and opportunity for comment.

One commenter (IV-D-137) offered qualified support for retaining the actual-to-actual test for utilities. The commenter (IV-D-137) endorsed retaining the actual-to-future-actual test for utility units based on the observation that a utility unit (which makes a physical or operational change that does not increase its hourly emission rate and would not wish to be restricted to the actual past operating schedule) should not be required to meet the control technology requirements of NSR. According to the commenter, current Federal regulations do not generally require the application of NSR to existing emissions units that increase their activity level. The commenter suggests that the demand-growth provision requirements and 5- to 10-year reporting put a practical limitation on the use of this provision. Notwithstanding a future increase in activity level due to demand growth and an increase in annual emissions, the emissions unit must be able to demonstrate that: (1) the existing unit would have had an increase in activity level anyway; and (2) the existing unit could have operated at the increased activity level anyway.

One commenter (IV-D-47) believed the actual-to-future-actual methodology should be eliminated for utilities. The commenter believed that the factual basis and safeguards in the WEPCO rule for utilities had been significantly altered as a result of new rules at the State and federal levels promoting wholesale competition in the public utility industry through open access. Subsequent to the WEPCO rule, the Federal Energy Regulatory Commission (FERC) has significantly modified the role of State public utility commissions through promulgation of the regulations related to “Promoting Wholesale Competition through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities.” The commenter noted that the Pennsylvania Public Utility Commission and the Pennsylvania legislature are evaluating the promotion of wholesale competition through open access at the State level. These changes will increase competition, decrease regulation, and undermine the predicate for the original WEPCO rulemaking,

Response:

In the 1996 NPRM, we specifically requested comment on whether the actual-to-future-actual test should be eliminated completely, including the current provisions for EUSGUs (see 61 FR 38267). After careful consideration of all the comments received, we decided to retain the test for EUSGUs essentially as provided in the WEPCO rules, except that EUSGUs will now use the same “actual-to-projected-actual” test that all other existing emissions units will use. Moreover, we believe that EUSGUs will continue to have adequate emission projection and tracking capabilities, regardless of deregulation of some aspects of public utilities. EUSGUs are still required to meet rigorous monitoring requirements under title IV as well.

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4.7 Enforcing Actual-to-future-actual Methodology**Comment:**

Several commenters (IV-D-46, 72, 73, 74, 88, 147, 160; IV-G-7) were concerned that it would be difficult to make compliance determinations, control technology determinations, and enforce NSR 5 years out if the 5-year tracking showed the future-actual emissions were exceeded.

Seven commenters (IV-D- 46, 72, 73, 74, 88, 147, 160) requested that EPA describe in more detail how NSR would be applied to a source that exceeds its future-actual emission levels during the required 5-year tracking period. The commenter recommends that the final rule clarify the enforcement ramifications associated with an inaccurate projection of future-actuals. In particular, the commenter suggests that the final rule provide that a source that is in error in predicting its future-actual emissions but acts in good faith will not incur civil or criminal penalties for unanticipated emission increases.

One commenter (IV-D-160) stated that the final rule should specify that if a significant emission increase unrelated to demand growth occurs, a source may install what the relevant BACT/LAER would have been at the time the physical change or change in method of operation occurred. One commenter (IV-D-46) believed that if the future actual emissions level was exceeded, the source should have an opportunity to mitigate the increase without penalty by installing control technology or offsetting emissions. According to the commenter, the reviewing authority is the one who establishes the projected representative actual emissions, so the source should not be subject to enforcement action for exceeding the future actual emissions if they have been working in good faith with the agency. Another commenter (IV-D-72) also believed that if the future actual emissions level was exceeded, the source should not be subject to enforcement action. Instead, it should have a 6-month period to lower emissions.

Another commenter (IV-D-62) believed a source should not be unfairly penalized because it underestimated its future-actual emissions; it should still be entitled to increase its emissions within the NSR significance levels without triggering retroactive NSR. According to this commenter, State permit compliance issues may develop independently of the NSR issue if actual emissions exceed permitted levels. Four commenters (IV-D-39, 73, 74, 88) urged EPA to clarify that reviewing authorities should not require that the estimated future-actual emissions become the *de facto* or normal permitted limits.

On the other hand, several commenters (IV-D-14, 47, 82, 137, 152) stated that if the actual-to-future-actual methodology was adopted, there should be an enforceable limitation on the future emissions. These commenters generally believed that if a source maintains that its actual emissions in the future will not exceed some level, then the source should be willing to commit to that level as an enforceable limit on its emissions. One commenter (IV-D-152) stated

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that it would be worth exploring ways to introduce flexibility to account for industrial and company production and market cycles in establishing an actual-to-enforceable-future-actuals test. Two commenters (IV-D-82, 137) stated that the NSR program should require new or modified sources to have legally enforceable limits on their future emissions that are compatible with applicable SIPs and are analyzed at their future allowable rate. Another commenter (IV-D-14) suggested that instead of finding that the applicability call for PSD was incorrect, the actual emissions should be set as an enforceable limit, or that the PTE should be used as the enforceable limit. The tests should involve future PTE, not future-actual emissions.

One commenter (IV-G-13) opposed the actual-to-future-actual methodology because it did not protect against emission increases. If there was an emission increase at the end of 5 years the environmental damage would already have been done. The commenter asked how the applicable agency would go back and remove from nearby residents, wildlife, and the environment those pollutants that would not have been released if the applicable agency had originally applied PSD, NSR, and BACT? The commenter believed EPA is de-emphasizing the cost to human health and the environment. The commenter was also concerned that the emission records were only one piece of information needed to determine compliance. The commenter asked what would happen if the facility has sufficient records showing non-compliance or if continuous monitors show non-compliance, but a stack test shows compliance? The commenter also suggested that if EPA allows the WEPCO regulations to apply to all industries, EPA should require that facilities submit all records, not just those showing compliance. The commenter was further concerned that there is no opportunity for public comment if a company fails to provide sufficient records or demonstrate compliance under the actual-to-future-actual methodology.

Response:

We believe that the final rules adequately describes how NSR would be applied to a source that exceeds its post-change actual emissions level during the 5- (or 10-) year tracking period. If the post-change annual emissions rate of a pollutant from the emissions unit(s) that is modified results in a significant emissions increase at the emissions unit(s), and the emissions rate is inconsistent with the pre-change projection, then the source should report this to the reviewing authority. If this increase is related to the physical or operational change, then the source is required to comply with the major NSR requirements, including an evaluation of BACT, and an analysis of air quality impacts to ensure that the major modification does not cause or contribute to a violation of any NAAQS or PSD increments. Moreover, the source may be subject to an enforcement action for being in violation of the major NSR requirements.

When, according to the source's best calculations, the physical or operational changes that are being planned to one or more existing emissions units at a major stationary source will not constitute a major modification, and there is a reasonable possibility that the project may result in a significant emissions increase, the source must document its findings (including a description of the project, an identification of emissions units whose emissions could increase as

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a result of the project, the baseline actual emissions for each emissions unit, the projection of post-change actual emissions before adjustments, the adjusted post-change emissions (future actual emissions or potential emissions) and the reason for the adjustment (for example, increase in product demand unrelated to the change), and, if the projected emissions increase is significant, the netting calculations using offsetting emission reductions elsewhere at the major stationary source to avoid being a major modification).

In addition, the final rules require a source to maintain post-change emissions data for all existing emissions units that are changed when there is a reasonable possibility that the project may result in a significant emissions increase. The source must maintain this information and compare it to the baseline actual emissions for at least 5 years. If the project will increase the design capacity or potential to emit of any existing emissions unit, the source must maintain and compare these data for that emissions unit to its baseline actual emissions for 10 years. The information that must be maintained may include continuous emissions monitoring data, operational levels, fuel usage data, source test results, or any other readily available information of sufficient accuracy for the purpose of determining an emissions unit's post-change emissions.

As mentioned above, a source must report to the reviewing authority any increase in its post-change emissions rate when that rate exceeds the baseline actual emissions by a significant amount and is inconsistent with the original projections. See, for example, new §52.21(r)(6)(iii).

In addition to the reporting requirements discussed above, a source is also obligated to ensure that the necessary emissions information is available for examination upon request by the reviewing authority. A source must also be prepared to make this information available to the general public upon their request pursuant to existing State procedures meeting the requirements of §70.4(b)(3)(viii) of the title V permit program, which requires that the reviewing authority has legal authority to "make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to section 503(e) of the Act, except for information entitled to confidential treatment pursuant to section 114(c) of the Act."

There are no provisions in the final rules to protect from civil or criminal penalties the owner or operator of a source that constructs a "major modification" without obtaining a major NSR permit, nor is there a provision to allow a certain amount of time to come into compliance as suggested by some commenters. We believe the post-change actual emission projection must be validated at all times to adequately protect and safeguard the environment and human health. In response to the commenter who was concerned about a significant emissions increase after the 5-year period, we re-emphasize that even when a source's projections of post-change emissions indicate that there will not be a major modification, when there is a reasonable possibility that the project may result in a significant emissions increase, the source must maintain annual records of actual emissions and report to the State when the post-change

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annual emissions rate (1) exceed the baseline emissions by a significant amount, and (2) is inconsistent with the original projections. We believe this procedure sufficiently minimizes any potential harm from excess emissions without overburdening the reviewing authority or the source with excessive recordkeeping and reporting.

We do not agree with the commenters who suggested that the actual-to-projected-actual methodology must be accompanied by an enforceable limitation on post-change emissions. Although we proposed this in our 1998 NOA, we have decided not to adopt it for the reasons we describe in Chapter 5.

4.8 Other Comments on Actual-to-future-actual Methodology**Comment:**

Several commenters (IV-D-46, 62, 67, 72, 106, 123, 136, 153, 160, IV-G-4) believed that the actual-to-future-actual methodology should only apply if the emission increase is significant and that this should be clarified in the final rule. Commenter IV-D-106 requested that the words “significant net” should be inserted before the phrase “emissions increase” in 40 CFR sections 51.165(a)(1)(xii)(F), 51.166(b)(21)(vi), 52.21(b)(21)(vi), and 52.24(f) to clarify that the significance thresholds are to be used with the actual-to-future-actual methodology. One commenter (IV-D-160) stated that by using the phrase “emissions increase” rather than “significant net emissions increase,” the proposed regulatory language implementing the future-actual test inappropriately suggests that a source could be subject to NSR if any increase in actual emissions occurs in the 5 years after a PC-CMO, regardless of whether the increase exceeds the significance threshold, or whether there are contemporaneous decreases to net-out increases. According to the commenter, this approach would contradict established policy as well as the existing regulations, which define a “major modification” as any PC-CMO that would result in a significant net emissions increase of any pollutant subject to regulation under the Act. The commenter recommends that EPA revise the proposed rule to clarify that under the actual-to-future-actual test a particular PC-CMO will not be subject to NSR requirements, so long as the source maintains records during the 5-year tracking period demonstrating that the PC-CMO did not result in a significant net emissions increase. One commenter (IV-D-62) suggested that only changes that cause future-actual emissions to exceed permitted emissions by more than the applicable significance level should be subject to NSR.

Several commenters (IV-D-73, 74, 88, 97, 146, 157) urged EPA to extend the actual-to-future-actual methodology to new sources, replacements, and/or reconstructions. Two commenters (IV-D-97, 157) disagreed with EPA’s decision to allow only modifying facilities, rather than constructing facilities, to take advantage of many of the changes in the proposed rule that provide additional flexibility including calculating the baseline based on an actual-to-actual comparison. These commenters believe that new sources should also be given the opportunity to project their future-actual emissions. They recommended that if EPA continues to treat

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construction differently than modification, it should clarify in the final rule the difference between the modification and construction of a new unit at an existing source.

Four commenters (IV-D-73, 74, 88, 146) stated that the proposed actual-to-future-actual test should apply to units that qualify as major modifications because of replacement or reconstruction. EPA should clarify that replacement or reconstruction of an emissions unit with a similar unit that does not result in a significant net emissions increase (that is, a replacement-in-kind) is not a major modification and therefore not subject to NSR. Another commenter (IV-D-146) agreed that EPA should extend the use of the actual-to-future-actual comparison to replacement or reconstruction since there is no practical difference between this situation and one in which a unit is merely modified. In both cases an adequate operating history exists and the unit that is reconstructed or replaced has “begun normal operations” to the same extent that a modified unit has.

Two commenters (IV-D-106, 143) stated that the Agency should reiterate that for electric utility sources, the actual-to-future-actual methodology is the proper approach to use for sources that have begun normal operations, and that (apart from the construction of a new unit or the replacement of an existing unit) there is no physical or operational change that will transform an existing unit into a unit that has not begun normal operations.

Response:

In response to the commenters who found our proposed descriptions of the actual-to-future-actual methodology (now called the “actual-to-projected-actual”) confusing regarding how a significant net emissions increase is determined, we have made clarifying changes to our regulations. In the final rules we are including a new section that outlines how a major modification is determined under the various major NSR applicability options and clarifies where to find the provisions in our revised rules. For each applicability option, we have described in our new rules how a major modification is determined in detail. You will find this new applicability “roadmap” in §51.165(a)(2), §51.166(a)(7), and §52.21(a)(2).

We have revised the definition of “major modification” to clarify what has been our policy for over two decades -- that determining whether a significant net emissions increase has occurred is a two-step process. The new definition of major modification basically includes any physical change in or change in the method of operation of a major stationary source that would result in (1) a significant emissions increase of a regulated NSR pollutant from a combination of one or more emissions units following the physical or operational change; and (2) a significant net emissions increase of that pollutant from the major stationary source over the contemporaneous period.

We understand the commenters’ concerns about proposed rule language suggesting that any post-change emissions increase, rather than a significant emissions increase, at a modified

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emissions unit would trigger NSR. The final rules make it clear that a modification project is subject to NSR only when the post-change actual emissions increase results in a significant emissions increase from the project and a significant net emissions increase at the source. In addition, the new rules require a source to report its post-change annual emissions rate to the reviewing authority only if the rate represents a significant emissions increase and the rate differs from the projected post-change emissions rate. See, e.g., new § 52.21(a)(2)(ii)(a), and (r)(6)(v), respectively. It should, be noted however, that utilities must report their post-change annual emissions to the reviewing authority even when they do not represent a significant emissions increase. See, e.g., new § 52.21(r)(6)(iv).

Regarding the comments recommending that like-kind replacements be allowed to use the new “actual-to-projected-actual” applicability test, we have decided to change the requirement that replacement units and reconstructed units be evaluated as new emissions using the “actual-to-potential” test. We now believe that such units possess ample track records to provide sufficient reason to believe that a projection of post-change actual emissions can be sufficiently reliable, and an up-front enforceable emissions cap is unnecessary. Instead, under the new rules, replacement and reconstructed units may, like modified existing units, compare their baseline emissions to their projection of post-change actual emissions to determine whether the replacement or reconstruction results in a significant emissions increase. In addition, we plan to reconsider the issue of how to treat like-kind replacement units in an upcoming rulemaking addressing the concept of routine maintenance, repair and replacement.

4.9 Support Other Applicability Options**Comment:****4.9.1 Support PTE-to-PTE Test**

Many commenters (IV-D-46, 74, 87, 88, 94, 134, 140, 145, 147, 154, 157, 160, 191; IV-G-4) endorsed the actual-to-future-actual methodology only as an alternative to the potential-to-potential test. Several of these commenters (IV-D-73, 74, 88, 160) preferred a potential-to-potential applicability test, but supported the actual-to-future-actual test with a demand growth exclusion for all source categories as a second option. One commenter would only support an actual test if the “before” and “after” emissions are evaluated over the same representative year of operation. See Chapter 7 for more detailed comments on the 10-year look back proposal. One commenter (IV-D-191) stated that the actual-to-future-actual test is too cumbersome and does not facilitate the goal of NSR simplification. However, the commenter would support the actual-to-future-actual test as a second option to the potential-to-potential test.

One commenter (IV-D-106) supported a potential-to-potential test unless EPA allowed a weighted twelve month average of hours of operation of 50 percent or greater operating capacity as a baseline with the actual-to-future-actual test. The commenter explained that a potential-to-

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potential test removes from NSR small changes that do not result in an increase of actual emissions and enables sources to make use of previously permitted capacity without being subject to NSR.

4.9.2 Support an Allowable-to-allowable Test

Two commenters (IV-D-105, 157) supported an allowable-to-allowable test because it is simple, protects air quality, and allows source flexibility. One of these commenters (IV-D-157) interpreted the regulations as supporting an allowable-to-allowable test, citing §52.21(b)(21)(iii), which states that the reviewing authority may presume that the “source-specific allowable emissions for any unit are equivalent to the actual emissions of the unit.” One commenter (IV-D-36) preferred an allowable-to-allowable applicability determination, but would support an actual-to-future-actual determination as a second option.

4.9.3 Other Applicability Options

Several commenters (IV-D-67, 110, 127, 130, 153) supported either actual-to-actual or potential-to-potential applicability options. Some commenters (IV-D-127, 130, 153) believed sources should have a choice of using either an actual-to-future-actual test or a potential-to-potential test such as CMA Exhibit B. One commenter (IV-D-108) supported the actual-to-future-actual test, but also supported a potential-to-potential methodology in the South Coast (Los Angeles area) and other regions in the country, provided a cap is imposed on all or part of a facility. The cap would be based on peak actual emissions during the previous 10 years. The cap would be supplemented, as appropriate, with full permitted emissions for any units that have previously undergone NSR, and thus fully offset, or with other increases due to collateral or cross-media impacts of excluded projects or to ozone depleting substances (ODS) substitution.

Two commenters (IV-D-46, 140) stated that in the absence of the potential-to-potential test, EPA should provide both the actual-to-potential test and the actual-to-future-actual tests. Exclusive use of the actual-to-future-actual test would result in higher permitting review burdens because a major stationary source would be subject to an applicable requirement for every triggering change, regardless of the change or size of the expected increase. The actual-to-potential test can result in less administrative and permitting burdens for small changes than the actual-to-future-actual test. Under the actual-to-potential test, changes with an uncontrolled or non-capped increase in PTE less than the significance threshold are not subject to a separate applicable requirement for demonstrating major NSR non-applicability.

One commenter (IV-D-157) preferred the actual-to-future-actual approach as a second option if EPA does not adopt an allowable-to-allowable test. The commenter stated that although an actual-to-future-actual approach would not simplify the NSR system nearly as much as an allowable-to-allowable approach, it would reduce some of the over-coverage of the actual-to-potential test. Yet, according to the commenter, as with the allowable-to-allowable

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discussion, EPA has failed to set the future-actuals discussion in the legal context and therefore restricted the proposed reforms.

One commenter (IV-D-67) advocated allowing each State to choose any one of the following applicability options: potential-to-potential, allowable to allowable, and actual-to-future-actual that allows capacity utilization increases.

One commenter (IV-G-07) recommended that States should be allowed to retain the actual-to-potential methodology and add the actual-to-future-actual methodology. Sources should have the opportunity to choose either the actual-to-potential or actual-to-future-actual test. Commenter IV-D-153 disagreed and said the States should not be allowed to use the actual-to-potential test as an option. Instead, the options should include the actual-to-future-actual test and a potential-to-potential test.

One commenter (IV-D-154) said EPA should significantly simplify applicability determinations within the major NSR program to more fully satisfy NSR reform. The commenter added that Alabama Power provides that EPA does not have to regulate sources or modifications if trivial or no environmental gains would result. EPA has relied on this decision to support the “de minimis” test. According to the commenter, Alabama Power may also be relied on to more clearly define and limit the types of physical changes or changes in the method of operation that will be subject to major NSR. The commenter further notes that a simple, straightforward process for determining applicability may be more successful in achieving CAA goals for the major NSR programs with less burden on the regulated community and State implementing agencies.

Response:

The potential-to-potential test supported by these commenters is similar in most respects to the CMA Exhibit B methodology that we presented in the 1996 NPRM. We received many comments in response to the 1996 proposal regarding CMA Exhibit B. Although some commenters believed the potential-to-potential test appropriately focuses on the significant emission changes that could produce an adverse environmental impact, several commenters believed that a potential-to-potential test would be environmentally detrimental. These commenters believed that CMA Exhibit B represents a substantial weakening of the PSD program with large increases in actual emissions, which in itself could lead to a significant deterioration of air quality. They also agreed with our concerns regarding the creation of paper credits and other impacts on the broader air quality planning process. One commenter stated that the potential-to-potential test would conflict with SIPs that are based on actual emissions, threaten a State's efforts to make reasonable further progress demonstrations, and interfere with emission credits relied on by SIPs.

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We agree with these commenters that a potential-to-potential test for major NSR applicability could lead to unreviewed increases in emissions that would be detrimental to air quality. We also agree with the commenters that the potential-to-potential test could make it difficult to implement the statutory requirements for state-of-the-art controls.

Our own concerns, coupled with the concerns expressed by some commenters, have caused us to reject the use of the Exhibit B regulatory changes for general purposes of determining whether a proposed physical or operational change would result in a major modification. For the reasons stated above, we do not believe that a potential-to-potential approach is acceptable for major NSR applicability as a general matter. However, we agree with the commenters in part--some of the benefits of a potential-to-potential approach are desirable. We believe that in more limited circumstances a potential-to-potential like approach would be acceptable. Therefore, we are promulgating two new applicability provisions that capture the benefits of a potential-to-potential approach but still have the necessary safeguards to ensure environmental protection-- PALs (see chapters 7 and 8) and Clean Units (see chapter 9). We believe that these applicability provisions address the concerns of the commenters supporting a potential-to-potential applicability test.

We also fully considered the comments recommending other applicability tests such as the allowable-to-allowable test. While each of these tests has its merits, we believe that they are inappropriate for the general purpose of determining whether a proposed physical or operational change would result in a major modification. However, the new applicability tests and options that we have included in the final rule provide broad flexibility to allow sources to respond to rapidly changing markets and plan for future investments in pollution control and prevention technologies.

4.10 Demand Growth**Comment:****4.10.1 Support Extending Demand Growth Exclusion**

Numerous commenters (IV-D-9, 28, 33, 42, 46, 62, 68, 72, 73, 74, 88, 97, 98, 108, 119, 123, 128, 129, 132, 136, 137, 138, 140, 142, 143, 146, 147, 149, 153, 154, 157, 160, 169) supported extending the use of the demand growth exclusion to all sources.

Many of the commenters (IV-D-62, 74, 88, 142, 143, 149, 153) believed that the currently promulgated regulations already provide a demand growth exclusion for non-utilities. One commenter (IV-D-153) explained that as the preamble to the WEPCO rule makes clear, when projected increased operations are in response to an independent factor such as demand growth, the increased operations cannot be said to result from the change and therefore may be excluded

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from the projection of the unit's post-change actual emissions. Such increases, according to the commenter, should not be included in post-change emissions even in the absence of a demand growth exclusion, as they are not the result of the changes under consideration. The commenter suggests that the proposed demand growth exclusion simply makes that principle explicit and eliminates confusion as to how emissions should be calculated. Another commenter (IV-D-143) stated that under current law the causal link requirement underpins the modification rule and provides an implicit demand growth exclusion for non-electric utility sources. The commenter recommends that EPA must, at a minimum, explicitly indicate that it is changing current regulations to eliminate these elements of current law and explain its authority to make such a fundamental change.

One commenter (IV-D-46) stated that if EPA does not provide industry with the same flexibility shown utilities to accommodate demand growth increases that would have occurred absent a modification, the actual-to-future-actual test will provide little more than an actual-to-future-allowable test with a prescribed 5-to-10-year limit on these allowables. According to the commenter, it is critical for industry to have the ability to increase production rates and operating hours to respond to increased market demand.

Several commenters (IV-D-123, 128, 143, 154, 160) stated that emission increases resulting from demand growth must be excluded from the calculation of future-actual emissions for all source categories. This is because any contrary interpretation would violate the causation requirement set forth in both the statutory definition of the term "modification" as well as the regulatory definition of the term "major modification." One commenter (IV-D-123) stated that any proposal that does not allow for growth in the public's use of electricity restricts the current law. According to the commenter, EPA discourages any efforts to reduce costs by stating that any increase in utilization following a change will be attributed to that change. The commenter asserts that EPA appears to be motivated by the notion that all increases in demand will have to be supplied by new plants, and that such new, NSPS plants are preferred over increasing the efficiency of existing sources. According to this commenter, it is by no means clear that increased demand cannot be met by older existing sources that are currently operating well below capacity. Another commenter (IV-D-128) noted that prior to EPA's adoption of the WEPCO rule, the exclusion of emission increases attributable to increased operation in response to demand growth was already directed by the NSR rules. This commenter recommends that EPA affirm that the modification rule provides an implicit demand growth exclusion for non-utility sources by making the demand growth exclusion available to all sources,.

Several commenters (IV-D- 62, 68, 140, 146, 154, 160) stated that the utility industry is not unique in having demand growth that increases emissions that are not related to a PC-CMO. Other industries should not be penalized for product demand growth increases in emissions that would have been allowed under their previous permit limits, and that are not related to the PC-CMO, just because a PC-CMO has occurred. One commenter (IV-D-146) pointed out that, like electric steam generating units, production equipment frequently operates at less than full

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capacity for reasons beyond the control of the owners and operators. Projections of market demand in the utility industry are no more reliable than similar information generated for many other sectors of the economy, but they are submitted to and reviewed by other regulatory agencies due to their importance. Moreover, the commenter notes that the source of the projections of demand growth in the utility industry are the utilities themselves, and other industry groups can provide similar information if necessary to support the exclusion contemplated by the proposal. Another commenter (IV-D-62) stated that while all sources may not be subject to the demand growth and utilization scrutiny that utilities face, changes in demand and related production level adjustments are routinely monitored and documented by all industries. The commenter observes that the mining industry is subject to periodic fluctuations in demand and price that dictate changes in production levels entirely independent of facility changes. According to the comment, emissions resulting from these independent factors should not be included in an NSR calculation for other industries any more than they are for utilities.

Two commenters (IV-D-128, 136) stated that EPA provides no rationale for eliminating the utility demand growth exclusion. They assert that it is inappropriate to subject a plant to NSR simply because it fulfills its legitimate, planned and permitted objective, which is to serve growth in demand.

One commenter (IV-D-142) observed that independent factors should not trigger the application of BACT/LAER. It claims that to do otherwise would prohibit facilities that make a minor physical or operational change from ever increasing their emissions in the future in response to unrelated factors. In the commenter's view it would be inappropriate and outside of the scope of the NSR program to consider demand growth or other independent factors in calculating post-change representative actual emissions.

One commenter (IV-D-157) stated that EPA should retain the demand-growth exclusion in the current WEPCO rule since source emissions may go up for many reasons completely unrelated to a physical or operational change. Conversely, PC-CMOs that increase efficiency often do not cause an emissions increase. According to the commenter, an actual-to-future-actual accounting system that does not recognize these factors would not differ meaningfully from an actual-to-potential approach. In the commenter's view, this was the message of the WEPCO case: the court found that the operating history of the entire plant was the proper guide to estimating the future emissions of the reconstructed unit.

One commenter (IV-D-31) recommended that the demand growth exclusion be extended to essential public service facilities, as long as their capacity remains in conformity with population growth in their service areas. Essential public service facilities such as publicly owned treatment works (POTWs), landfills, and water utilities must continuously increase, modify and modernize their facilities/activities at a pace consistent with population growth demands. This commenter asserts that most of the emission increases from these facilities are associated with demand growth, and that demand growth projections for essential public services

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in general are generated by the metropolitan planning organization and have many levels of input and approval.

One commenter (IV-D-137) offered qualified support for the extension of the demand growth exclusion, in the absence of a preferred system based on a revised actual-to-potential methodology.

4.10.2 Oppose Extending Demand Growth Exclusion

Several commenters (IV-D-14, 47, 125, 152, 393; IV-G-13) opposed the use of a demand growth exclusion.

One commenter (IV-D-152) stated that the provision would be subject to abuse and might provide an opportunity for creative accounting as sources expand their operations to meet growth in demand. The commenter stated, "What else are sources going to be expanding their operation for if not to meet growth in demand?" Another commenter (IV-D-125) suggested that the demand growth exclusion provides a disincentive for emissions reduction because of the difficulty in enforcement of compliance with the limits of the exclusion. According to the commenter, the reduction of costs due to higher efficiency may lead to higher product demands and thus to increased emissions. The commenter believes that if emission limitations under the exclusion guidelines cannot be punitively enforced, sources will have no incentive to comply.

Another commenter (IV-D-47) stated that the demand growth exclusion provisions of the WEPCO rule would require projections, estimates and post-modification evaluations of increased emissions to determine whether they were a result of increased demand; a costly and time-consuming process has little to do with air quality control. The commenter stated that if the current actual-to-potential methodology is continued, there is no need for a demand growth exclusion. This is because a source that establishes enforceable emission levels as part of the NSR process is not precluded from increasing demand so long as its post-modification emissions rate does not change. According to the commenter, the only reporting necessary under such an approach is the compliance reporting presently in place for sources

One commenter (IV-G-13) stated that the current demand growth exclusion fails to take into account situations where costs are reduced by using waste products such as tires and hazardous waste as fuels. This cost reduction may, in turn, increase demand. According to the commenter, this is another large oversight in light of the many facilities turning to waste fuels as a means to reduce their costs.

One commenter (IV-D-14) suggested that if EPA adopts the actual-to-future-actual test, then the demand growth exclusion should be eliminated for non-utility industries. The commenter asserts that most agencies do not have the specific process engineering background

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that companies do, and they are generally unable to evaluate the veracity of the claim that a change affects capacity, nor do they possess any basis to evaluate projections of capacity.

4.10.3 Other Comments on the Demand Growth Exclusion

Two commenters (IV-D-126, 169) requested that if EPA finds the demand growth exclusion provision inappropriate for all other sources, it should at least retain it for electric utilities. They believe that the demand growth exclusion works well for utility units where demand and facility utilization data are typically assessed by an independent regulatory agency (for example, State public utility commissions) and made available to the public. This kind of information may not be readily available for other source categories. They further argue that an electric utility has much less influence over demand growth than an unregulated company in the private sector. Another commenter (IV-G-4) said utilities have an obligation to serve and are expected to maintain adequate capacity to respond to surges in demand and a margin to meet gradual growth in demand. This commenter asserts that the need for such reserve margins equates to greater differential between “actual” and “potential” emissions with the utility industries than typically occurs in most other industries.

Two commenters (IV-D-143, 145) stated that EPA would have to undertake a further round of notice-and-comment rulemaking specifically on this issue before the Agency could eliminate the demand growth exclusion for utilities. One commenter (IV-D-143) stated that if EPA eliminated the demand growth exclusion for utilities without first taking public comment, it would foreclose the commenter’s right under §307(d) of the Clean Air Act to review and comment meaningfully.

Two commenters (IV-D-129, 132) stated that the approved options for developing demand growth exclusion levels for chemical and manufacturing plants should include: (1) projecting the growth rate (sales or production) for the entire industry applied as a blanket demand growth exclusion; (2) basing the demand growth exclusion on the projected sales growth rate for the company, plant site, or production unit; and (3) basing the demand growth exclusion on the projected sales growth of the chemical or plastic being produced.

One commenter (IV-D-157) suggested two “decision rules” for States to use in making a broad actual-to-future-actual test workable. First, all changes at a plant that do not significantly affect its overall production cost or product quality should be exempted from NSR. New or modified units without major impact on overall plant costs should be presumed not to cause any increase in overall plant activity levels. Second, even if a change at a source reduces costs or improves quality to a significant degree, regulators should not presume that it causes a later increase in source activity levels. According to the commenter, there is no logic to EPA’s blanket presumption that any change at a plant that markedly increases efficiency or product attractiveness must always be evaluated under the actual-to-potential test. The commenter recommends that the actual-to-future-actual test and the demand growth exclusion still be

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available for changes that significantly improve efficiency or product quality, as long as the source shows that the change did not cause an emissions increase.

Response:

Under the final rules, sources will be allowed to apply the causation provision as originally contained in the WEPCO amendments. We have concluded that this provision is appropriate and consistent with both the statute and implementing regulations, which suggest that there should be a causal link between the proposed change and any post-change increase in emissions, that is, "...any physical change or change in the method of operation that would result in a significant net emissions increase..." [emphasis added]. See, for example, existing §52.21(b)(2)(i). While in a very few cases it may be difficult to determine whether a particular emissions increase is related to a physical or operational change that is made to an emissions unit, it would be inappropriate to completely eliminate the availability of the exclusion to everyone. Consequently, the final rules follow the 1996 NPRM in that when a projected increase in equipment utilization is in response to a factor such as growth in market demand, the emissions increases from the unit's post-change actual emissions may be subtracted if it can be shown that the unit could have achieved the necessary level of utilization during the consecutive 24-month period that was selected to establish the baseline actual emissions, and the increase is unrelated to the physical or operational change(s) made to the unit. See for example, new §52.21(b)(41)(ii)(c).

On the other hand, demand growth can only be excluded to the extent that the physical or operational change is not related to the emissions increase. Thus, even if the operation of an emissions unit to meet a particular level of demand could have been accomplished during the representative baseline period, but it can be shown that the increase is related to the changes made to the unit, then the emissions increases resulting from the increased operation must be attributed to the modification project, and cannot be subtracted from the projection of post-change actual emissions.

4.11 Utilization Increases**Comment:**

Several commenters (IV-D-28, 46, 62, 67, 72, 114, 119, 121, 123, 136, 143, 145, 157, 172) argued that emission increases due to increased utilization should not be considered major modifications.

Some of these commenters (IV-D-121, 136, 143) insisted that EPA policy and rules had always allowed increases in capacity utilization without triggering a modification. The commenters cited the rules at 40 CFR 52.21(b)(2)(iii)(f) and Congressional intent as allowing increases in hours of operation or in production rate without triggering a modification.

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Expanding NSR jurisdiction to utilization increases would penalize American industry for periodic underutilization of existing equipment, the commenters maintained. Two commenters (IV-D-121, 143) opposed what they termed as EPA's proposal to subject increases in a source's production rate or hours to major NSR because it codifies an interpretation of the exclusion that is contrary to the meaning and the regulatory history of the rule. They argue that the provision of the CAA that codifies the NSPS definition of modification for purposes of the NSR program precludes EPA from making this change, or any other change that would significantly limit this NSPS-based exclusion. They claim that the seminal statutory provision, section 111(a)(4), 42 U.S.C. 7401(a)(4), provides no warrant for such a test. In their view, EPA should rely in the case of all kinds of units solely on a good faith, reasonable, pre-construction estimate of future-actuals. One commenter (IV-D-143) stated that the claim by EPA of historical consistency in applying the hours of operation exclusion in the manner it now advances is incorrect. The commenter claims that, prior to the WEPCO/Port Washington determinations, EPA's practice was to apply the hours of operation/production rate exclusion where an emissions increase was attributable to increased capacity utilization, even if the increase in production rate was preceded by non-routine physical changes at the facility.

Several commenters (IV-D-42, 108, 140, 160) urged EPA to clarify that emission increases due to increased utilization would be excluded from NSR applicability if the source was able to accommodate the capacity increase before the physical change or change in method of operation. However, emission increases due to a debottlenecking project that extends a source's capacity and PTE would not be excluded from NSR applicability. Another commenter (IV-D-160) raised concerns that EPA's interpretation of the demand growth exclusion is excessively narrow. In the commenter's view, EPA should clarify that the only circumstance in which a product demand increase would not be excluded from NSR would be a case where a corresponding PC-CMO increases the source's PTE, thus enabling the source to accommodate demand it was previously unable to accommodate.

One commenter (IV-D-123) stated that not allowing utilization increases will limit new capacity to new units instead of promoting increased efficiency at existing units. One commenter (IV-D-72) stated that it is not sensible to include increases in utilization unrelated to the facility change in the post-modification emissions estimate. According to the commenter, even in cases where future demand growth may be more difficult to predict than in the electric utility industry, it would be absurd to count emissions that are related to an increase in demand for tires or automotive belts.

One commenter (IV-D-157) stated that there is no logic to EPA's blanket presumption that any change at a plant that markedly increases efficiency or product attractiveness must always be evaluated under the actual-to-potential test. The commenter advocates that the actual-to-future-actual test should still be available for changes that significantly improve efficiency or product quality, as long as the source shows that the change did not cause an emissions increase.

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One commenter (IV-D-28) noted that demand growth is one of several possible independent factors that may result in a source increasing emissions quite independently of the permitted modification the exclusion projects. The commenter suggests that the fundamental basis of the attacks on the exclusion is obstructionism proceeding from an anti-growth attitude - not environmental protection. According to the comment, the exclusion recognizes, and does not exclude, emission increases due to increased efficiencies at a unit, and otherwise recognizes that only increases in emissions attributable to the modification itself should in fact be attributed to the modification.

One commenter (IV-D-67) explained that plants are often built with excess capacity that may not be used in the future, depending on the demand for products. The commenter has many plants that have much higher potential emissions than actual emissions. The commenter believes that these plants should be allowed to increase emissions without triggering NSR because increases are associated with increased demand rather than any physical or operational change. The commenter believes that this scenario is very similar to the utilities' circumstance, and recommends that for plants with excess capacity, a version of the actual-to-future-actual test is the best measurement of when NSR should be triggered because it allows consideration of capacity utilization.

One commenter (IV-D-114) stated that the way modifications are currently evaluated for potential emissions is subjective primarily because of the utilization multiplier that is used in conjunction with an hourly emission rate. The utilization factor is dependent upon numerous conditions. According to the commenter, while EPA considers unit reliability and efficiency to be primary in determining utilization rate, in the natural gas transportation industry, demand is almost exclusively the determining variable. The commenter therefore maintained that utilization increases are generally due to demand growth. The commenter preferred that a potential-to-potential accounting methodology be used to avoid subjective decisions regarding whether emission increases were attributable to utilization increases or demand growth.

One commenter (IV-D-125) stated that explicit guidelines for emission increases due to utilization increases need to be adopted and enforced. This commenter believes that making determinations on a case-by-case basis is dangerously vague and could potentially be detrimental to the goals of the NSR.

Response:

We agree with the commenters that an increase in utilization should not automatically trigger the major NSR requirements. As explained in previous comment responses, the Clean Air Act only applies the major NSR requirements to emission increases that are the result of a physical or operational change. Thus, we do not believe that the major NSR requirements should apply to a utilization increase unless it is related to the modification. Under the final rules, sources may exclude emissions related to an increase in utilization if they were able to

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accommodate the increase in utilization during the 24-month period that was selected to establish baseline actual emissions and the increased utilization is not related to the change. We believe this provision addresses the commenters' concerns regarding guidelines for emission increases due to utilization increases.

In addition, we believe the calculation of the pre-change baseline emissions in the final rule (the average annual emissions rate, in tons per year, using any consecutive 24-months during the 10-year period immediately preceding the change, adjusted to reflect current emission factors) allows sources to preserve utilization levels that were actually achieved during a normal business cycle. In most circumstances, sources will be able to preserve the utilization levels achieved during the 24-month period that they selected, unless a restriction, such as a limit on the hours of operation, has since been imposed. We believe that the 10-year look back period prevents the perceived confiscation of underused capacity at sources who have had low utilization rates for an extended period. This 10-year look back period is more likely to afford a source a baseline actual emissions calculation that best reflects representative source operating conditions.

4.12 5-year Tracking - General Comments**Comment:**

Some commenters (IV-D-14, 39, 72, 79, 97, 120, 137, 170) generally supported EPA's tracking proposal. One commenter (IV-D-14) said 5-year tracking should be required so that there is a factual finding as to whether emissions increased.

Other commenters (IV-D-33, 46, 53, 94, 97, 123, 129, 132, 138, 147, 149, 153, 154, 191) opposed the proposed tracking requirements. Several commenters (IV-D-123, 153, 154) viewed the 5-year tracking requirement as burdensome. Two commenters (IV-D-123, 154) stated that the proposed tracking system would place an enormous reporting burden on industry without additional environmental benefit. One commenter (IV-D-153) characterized the recordkeeping proposal as inconsistent with the goal of streamlining the NSR process. According to this commenter, the focus of the reporting should be whether a significant net emissions increase has occurred, not whether the projected actual emissions level proved entirely accurate.

Response:

We agree with those commenters who recommend that sources should be required to track emissions for a period of time following a modification to assure that the modification does not result in a major modification. Accordingly, the new rules require a source to monitor and record its emissions when there is "a reasonable possibility that a project that is not part of a major modification may result in a significant emissions increase." We have limited the scope of the recordkeeping requirement so that they will not be interpreted so stringently as to require

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recordkeeping for any physical or operational change regardless of its potential effect on emissions. Thus, we have retained our proposed requirement for sources to maintain operating data and to document their annual emissions information (along with other information associated with the calculations for determining a significant emissions increase) for a period of 5 years following the change. We expanded this requirement to 10 years for changes that result in an increase in an emissions unit's capacity or its potential to emit a regulated NSR pollutant.

We disagree that these recordkeeping requirements would be overly burdensome. Many existing SIP programs (for example, minor NSR programs) already require such emissions tracking, so this requirement is generally not considered to be an additional burden on industry. The NSR program remains a pre-construction review program. To ensure a level playing field between sources that may approach the pre-construction projection of post-change emissions with different degrees of conscientiousness, monitoring the quality of pre-construction projections is important.

4.13 5-year Tracking - Adequacy of Tracking; Whether Tracking is Working as Intended and Whether It Should be Changed In Any Way

Comment:

4.13.1 Tracking does work

Some commenters (IV-D-28, 120) believed that emissions could be tracked and that the requirement to track emissions provided an adequate safeguard for using the actual-to-actual methodology. One commenter (IV-D-28) believed the 5-year tracking period and potential for extension to 10 years offered sufficient protection to allow the actual-to-future-actual methodology. One commenter (IV-D-120) concluded that a 5-year tracking system is an adequate safeguard since new equipment is installed to track various operating parameters (hours of operation, fuel use, etc.).

Several commenters (IV-D-62, 112, 121) maintained that non-utilities would be able to track emissions as well as utilities can. Two of the commenters (IV-D-112, 121) stated that because all major sources will soon be required to conduct CAM-level monitoring, recordkeeping, and reporting under title V of the CAA, verifying future-actual emissions should be a task that sources are equipped to handle. One commenter (IV-D-62) stated that EPA had no basis for its concern that non-utility industries will fail to adequately monitor emissions because they are not subject to the same level of monitoring required of utilities. The commenter asserted that, under title V and other CAA programs, major sources will be upgrading their monitoring and reporting capabilities, and that these sources will be able to provide the necessary documentation of their compliance with a post-change emissions prediction. Another commenter

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(IV-D-121) asserted that the emission parameters of industrial boilers can be monitored as well as the emission parameters of utility boilers.

4.13.2 Tracking does not work and how to improve it

One commenter (IV-D-105) stated that it would be difficult to track past-actual emissions and future-actual emissions. The commenter posed the following questions:

- Must the source always use the same past actual emissions?
- Can the two-year period for determining past actual emissions change depending on what the future-actual emissions become?
- Would the system be based on a 12-month rolling average, which compares past to future-actual emissions?
- What about the possibility of retroactive PSD review which could occur if a physical change subsequently resulted in higher-than-expected emissions, thereby tripping the significant emission rate criteria in a future year?

Several commenters (IV-D-46, 72, 94, 97, 129, 132, 138, 154) suggested various changes or improvements to the tracking requirements in the promulgated rule. One commenter (IV-D-72) stated that some tracking of future-actual emissions is necessary to ensure that a facility does not surpass these projected emissions, but EPA should not require elaborate and time-consuming recordkeeping. The commenter asserted that much of the information should already be available, because, for example, companies often will need to track actual emissions under their title V permits. The commenter believes that the recordkeeping and reporting associated with this tracking exercise undoubtedly will be expensive, and an extension of the period from 5 to 10 years cannot be justified. Moreover, according to the commenter, a reviewing authority will not be able to predict a facility's future production levels. The commenter recommends that future-actual emissions should be determined during the 5-year period by a fairly simple tracking of unit or line utilization, as is done in the WEPCO rule.

Several commenters (IV-D-46, 94, 138) supported keeping tracking records on site, but not reporting emissions as a way to reduce the burden. Two commenters (IV-D-46, 138) stated that there should be no requirement to report the emissions unless there is a problem. The commenter noted that since this recordkeeping requirement would be another applicable requirement for which the owner/operator must report deviations and certify compliance under title V, the added process of submitting these records to EPA or the reviewing authority is unnecessarily duplicative for both the regulated community and the implementing agencies. Another commenter (IV-D-97) stated that EPA should rely on records kept for other purposes to determine compliance.

Three commenters (IV-D-129, 132, 154) stated that because the CAM rule and the title V program will also mandate monitoring and recordkeeping requirements that can be used to make

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the 5-year demonstration, the installation of expensive continuous emissions monitors is not justified for demonstrating non-applicability. Two commenters (IV-D-129, 132) stated that stack testing after a modification should suffice as an option for demonstrating compliance during the 5-year period following the application of the actual-to-future-actual test to a physical or operational change. Records of hours of operation, fuel rates, production rates, etc. can then be used with the new emissions factor to demonstrate that NSR is not triggered during the 5-year period.

One commenter (IV-D-67) proposed that recordkeeping should confirm the source's projection of the future-actual calculation rather than confirming that there is no increase over the baseline actuals, and that EPA's discussions of this section confirm this recordkeeping concern. [The commenter provided specific language describing future-actual emissions.] Commenter IV-D-154 agreed that industry should maintain data for 5 years to demonstrate that a significant net increase in actual emissions did not occur, which should be sufficient to meet EPA's needs.

One commenter (IV-G-7) proposed that if a source uses the proposed actual-to-future-actual methodology and the emission tracking shows a increase over the baseline level, the source should be allowed a maximum of 180 days to develop and submit a plan of action to ensure that the source can adequately protect future emissions.

One commenter (IV-D-125) suggested that the 5-year reporting/tracking period should be combined with an enforcement mechanism and strict ramifications for non-compliance. This commenter believes that a tracking period with no enforcement mechanism creates the potential for mischief and limits emission reduction opportunities. The commenter did not support the actual-to-future-actual methodology for non-utility sources.

Two commenters (IV-D-129, 132) stated that EPA should only require 5-year tracking of post-modification emission rates if the source fails the existing actual-to-potential test. That is the existing applicability test should be retained as an option. The commenter recommends that EPA not require additional monitoring in situations where it would not have been required under the current regulations. The commenter did not explain the criteria for judging whether a source had failed the actual-to-potential test.

Response:

We believe that the tracking requirements in the final rules alleviate many of the concerns presented by these commenters, particularly those concerns dealing with the procedures to be used, the elaborateness of required records, minimizing reporting, and enforcement mechanisms. When, according to the owner or operator's best calculations, the physical or operational changes the major stationary source is planning to make at one or more existing emissions units at a major stationary source will not constitute a major modification, but there is a reasonable possibility the project may result in a significant emissions increase, the source must document

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its findings concerning the resulting emissions increase, including a description of the project, identification of emissions units that will be changed, baseline emissions calculations and any adjustments made, and projections of post-change actual emissions. Moreover, if the projection shows that the physical or operational change will result in a significant emissions increase, then additional calculations associated with any contemporaneous increases and decreases used for netting purposes must also be documented and maintained.

In addition, when there is a reasonable possibility that a project may result in a significant emissions increase, the final rules require a source to maintain records of post-change emissions from the project. The source must maintain this information and compare the project's post-change annual emissions, in tons per year, it to its baseline actual emissions for at least 5 years. If the project will increase the design capacity or potential to emit of any emissions unit, the source must maintain and compare this data for that emissions unit to its baseline actual emissions for 10 years. The information that must be maintained may include continuous emissions monitoring data, operational levels, fuel usage data, source test results, or any other readily available information of sufficient accuracy for the purpose of determining an emissions unit's post-change emissions.

As mentioned in previous comment responses, sources must report to reviewing authority any increase in a post-change emissions rate when the rate exceeds the baseline actual emissions by a significant amount, and is inconsistent with the initial projections. See, for example, new §52.21(r)(6)(iii).

Finally, in addition to the reporting requirements discussed above, sources are also obligated to ensure that the necessary emissions information is available for examination upon request by the reviewing authority. A source must also be prepared to make this information available to the general public upon their request pursuant to existing State procedures meeting the requirements of §70.4(b)(3)(viii) of the title V permit program, which requires that the reviewing authority has legal authority to "make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to section 503(e) of the Act, except for information entitled to confidential treatment pursuant to section 114(c) of the Act."

4.14 5-year Tracking - Length of Tracking Period**Comment:**

Several commenters (IV-D-14, 79, 120, 170) specifically supported the 5-year emissions tracking requirement. Two commenters (IV-D-79, 170) stated that since the relevant data would tend to be collected and reported anyway in the context of title V compliance, this approach would dovetail well with other CAA regulations.

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One commenter (IV-D-191) supported a 2-year tracking period for the actual-to-future-actual test, but objected to a longer tracking period because it asserts that the relationship between a modification and emission increases more than 2 years after the modification is too remote and tenuous to justify tracking. One commenter (IV-D-97) preferred no tracking but stated that if EPA requires tracking, a 3-year period should be sufficient to indicate that the source was correct or incorrect in its projection.

Two commenters (IV-D-72, 160) stated that the final rule should not extend the proposed 5-year tracking period to a longer time frame (for example, 10 years). The commenters (IV-D-72, 160) noted that extending the tracking period would be unfair to sources because it would impose an unreasonable presumption that emission increases occurring as much as 10 years after a particular PC-CMO are attributable to that change. According to the commenter, the relationship between a PC-CMO and emission increases more than 5 years later is too tenuous to justify this presumption. Finally, the commenter asserts that the proposed requirement that sources submit records during the 5-year tracking period would increase the reporting burden on industry without providing any corresponding environmental benefit. The commenter suggests that it would be sufficient to require industry to maintain data for 5 years to demonstrate that a significant net increase in actual emissions did not occur.

One commenter (IV-D-138) advocated a 5-year information tracking period after a determination that emissions after a particular source change will not increase significantly. During this tracking period the source owner should be required to maintain records and estimates of actual emissions on-site, and immediately report to the reviewing agency should the increase in actual emissions resulting from the source change exceed the applicable NSR significance level.

Two commenters (IV-D-33, 149) suggested that the more logical endpoint for tracking emissions would be at the expiration of the part 70 or 71 permit term when the required monitoring provisions, if any, would be renewed. [The commenter recommended specific language revisions to the proposed §51.166(b)(21).]

Response:

Generally, a source's projection of post-change actual emissions must be tracked against a facility's emissions for 5 years following completion of the changes, unless there is not a reasonable possibility that the project may result in a significant emissions increase. We will presume that any increases that occur after 5 years are not associated with the physical or operational changes. If, however, one of the effects of the physical or operational change(s) is to increase a unit's design capacity or potential to emit, such that a significant emissions increase could result, but the source does not believe that the new capacity or potential to emit will be fully utilized (so as not to cause a significant net emissions increase), the projection of post-change actual emissions must represent the maximum actual annual emissions rate that will

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result from the unit in any one of the 10 calendar years after the change. This extended period allows for the possibility that the increased capacity that was added via the physical or operational changes could be fully utilized during a normal business cycle.

The final rules require sources to keep a record of post-change emissions projection and to track post-change emissions and retain those records on site when there is a reasonable possibility that the project may result in a significant emissions increase. These records will enable the source and the reviewing authority to ensure that the physical or operational changes that were made do not actually trigger a major modification. If the source determines, during the 5 or 10 years of required recordkeeping, that the changes made to an emissions unit result in annual emissions that are higher than the initial projections, and such emissions increase or the emissions projection results in a significant emissions increase, the source should submit a report to the reviewing authority to explain the discrepancy and could be subject to major NSR.

We believe that these added recordkeeping and reporting measures will improve the overall compliance rate and provide the information necessary for reviewing authorities to assure that such changes are made consistent with the Clean Air Act requirements. Altogether, we believe these regulatory amendments focus on the types of changes occurring at existing emissions units that are more likely to result in significant contributions to air pollution. The amendments will also require greater accountability on a source's part to retain information from which the reviewing authority can determine the nature of any changes that are made at an emissions unit, as well as the actual emissions increases that are associated with those changes.